RESEARCH REPORT

VARIABILITY IN CONSTRUCTION INSURANCE AND ALTERNATIVE INSURANCE SOLUTIONS

HOUSING
AFFORDABILITY
AND FINANCE
SERIES

Canada

CMHC SCHL

CMHC—HOME TO CANADIANS

Canada Mortgage and Housing Corporation (CMHC) is the Government of Canada's national housing agency. We help Canadians gain access to a wide choice of quality, affordable homes.

Our mortgage loan insurance program has helped many Canadians realize their dream of owning a home. We provide financial assistance to help Canadians most in need to gain access to safe, affordable housing. Through our research, we encourage innovation in housing design and technology, community planning, housing choice and finance. We also work in partnership with industry and other Team Canada members to sell Canadian products and expertise in foreign markets, thereby creating jobs for Canadians here at home.

We offer a wide variety of information products to consumers and the housing industry to help them make informed purchasing and business decisions. With Canada's most comprehensive selection of information about housing and homes, we are Canada's largest publisher of housing information.

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Variability in Construction Insurance and Alternative Insurance Solutions

Canada Mortgage and Housing Corporation ("CMHC")

November 2004

MARSH

MMC Marsh & McLennan Compan s

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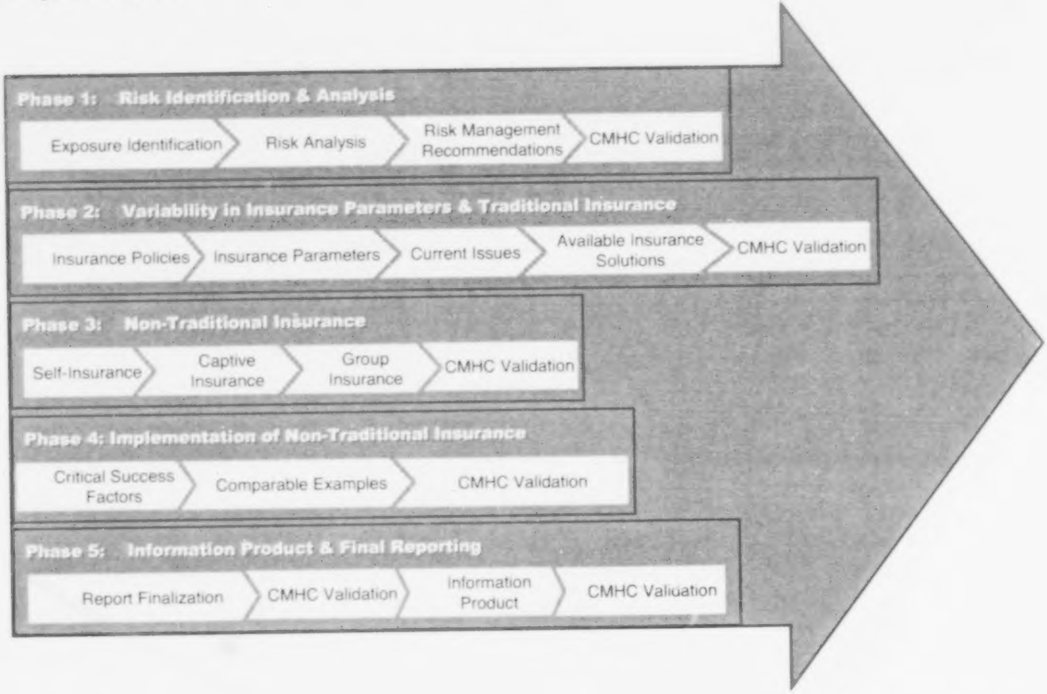
Executive Summary

The Executive Summary is intended to provide a high-level overview of the key risks, insurance implications, risk financing alternatives and success factors in implementation of risk financing options for residential home builders or renovators. Both the Executive Summary and the full report have been developed following a phased process.

Project Process


Phase 1: Risk Identification & Analysis
Exposure Identification
Risk Analysis
Risk Management Recommendations
CMHC Validation
Phase 2: Variability in Insurance Parameters & Traditional Insurance
Insurance Policies
Insurance Parameters
Current Issues
Available Insurance Solutions
CMHC Validation
Phase 3: Non-Traditional Insurance
Self-Insurance
Captive Insurance
Group Insurance
CMHC Validation
Phase 4: Implementation of Non-Traditional Insurance
Critical Success Factors
Comparable Examples
CMHC Validation
Phase 5: Information Product & Final Reporting
Report Finalization
CMHC Validation
Information Product
CMHC Validation

The Executive Summary highlights the major findings of each phase. The entire report, or the specific phase(s) of interest, should be read to obtain detailed insight.

Wherever we use the term "builder" in this document, we mean "new home builder or renovator".

Research Objectives

Marsh Canada Limited ("Marsh") was engaged by the Canada Mortgage and Housing Corporation ("CMHC") to meet the primary objectives specified below:

1. Identify and analyze the categories of risk in the business of building new or renovating existing housing and the categories of risk that are typically assigned to a third party through contract, transferred through purchase of insurance or internalized;

2. Obtain existing insurance policies available to builders in sufficient quantity and representativeness for documenting the variability in the insurance parameters;

3. Identify and analyze the current issues in and their implications from acquiring protection against the risk in the business of building new or renovating existing housing through traditional insurance;

4. Identify the non-traditional means of acquiring protection against the risk in the business of building new and renovating existing housing, including captive insurance, self-insurance and group insurance as well as provide a comparative analysis between each of these non-traditional insurance and traditional insurance;

5. Identify and analyze the critical success factors in implementing each of the non-traditional means of acquiring protection against the risk in the business of building new and renovating existing housing; and

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6. Develop an information product for helping builders make informed decisions in purchasing the right insurance, including asking the right questions and evaluating the answers to these questions.

Phase 1: Risk Identification & Analysis

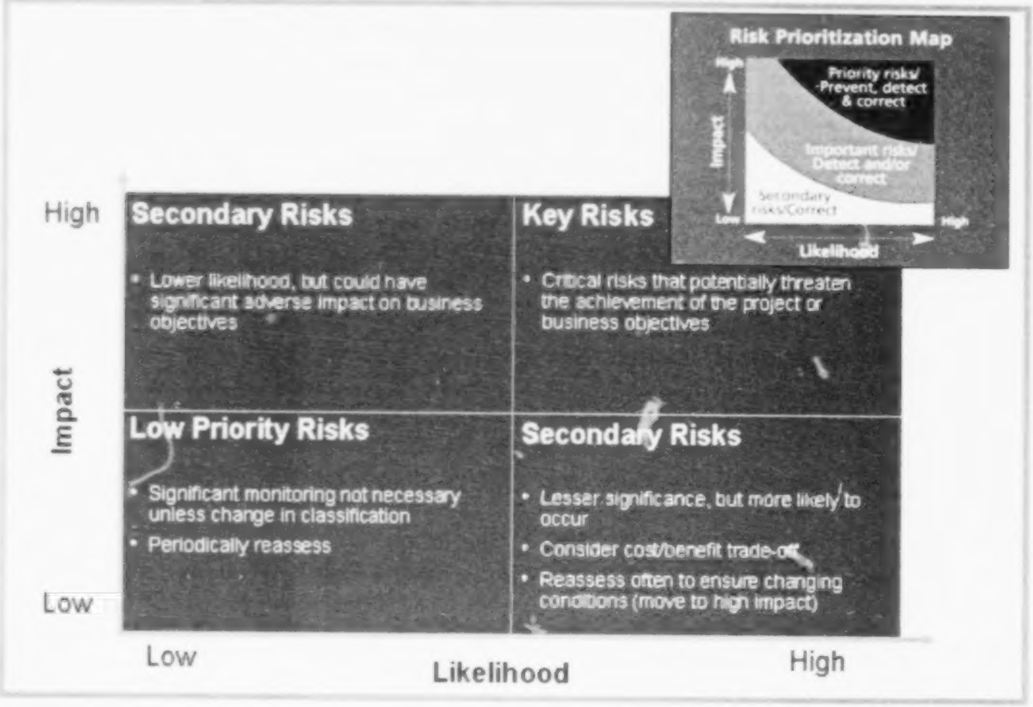
A key risk is defined as "a critical risk that potentially threatens the achievement of the project or overall business objectives". When ranking risks based on impact to the project or business objectives, the following risk impact measures have been developed:

Risk Impact Measures

Rank	Impact	Criteria
4	Catastrophic	On average, this category of risks could have a catastrophic impact on defined criteria of organization.
3	High	On average, this category of risks could have a high impact on defined criteria of organization.
2	Moderate	On average, this category of risks could have a moderate impact on defined criteria of organization.
1	Low	On average, this category of risks could have a minimal impact on defined criteria of organization.

A risk map graphically represents how risks can be categorized by measuring the impact of a risk and its likelihood of occurrence. Risks that plot in various quadrants of a risk map should be managed and treated differently.

Risk Prioritization Map


Risk Prioritization Map
High
Impact
Low
Priority risks/ -Prevent, detect & correct
Important risks/ Detect and/or correct
Secondary risks/Correct
Low
High
Likelihood
High
Secondary Risks
• Lower likelihood, but could have significant adverse impact on business objectives
Key Risks
• Critical risks that potentially threaten the achievement of the project or business objectives
Impact
Low Priority Risks
• Significant monitoring not necessary unless change in classification
• Periodically reassess
Secondary Risks
• Lesser significance, but more likely to occur
• Consider cost/benefit trade-off
• Reassess often to ensure changing conditions (move to high impact)
Low
Low
Likelihood
High

Identified below are key risks in the Residential Construction Industry. These were compared against the Marsh Risk Inventory in Appendix A, as well as a Residential Construction Industry Risk Inventory in Appendix B, and also reflect comparison to risks commonly identified based on proprietary research.

Key Risks – Residential Construction Industry

Business Interruption Risk
Change in Ground Conditions Risk
Construction Accidents Risk
Contractor Performance Risk
Cost Overrun Risk
Credit (Default) Risk
Employee/ Third Party Fraud Risk
Estimation Risk
Labour/ Union Relations Risk
Legal and Regulatory Compliance Risk
Natural Hazard Risk
Pollution Risk
Products/ Service Failure Risk
Project Allocation Risk
Site Security and Safety Risk
Supply Chain Risk

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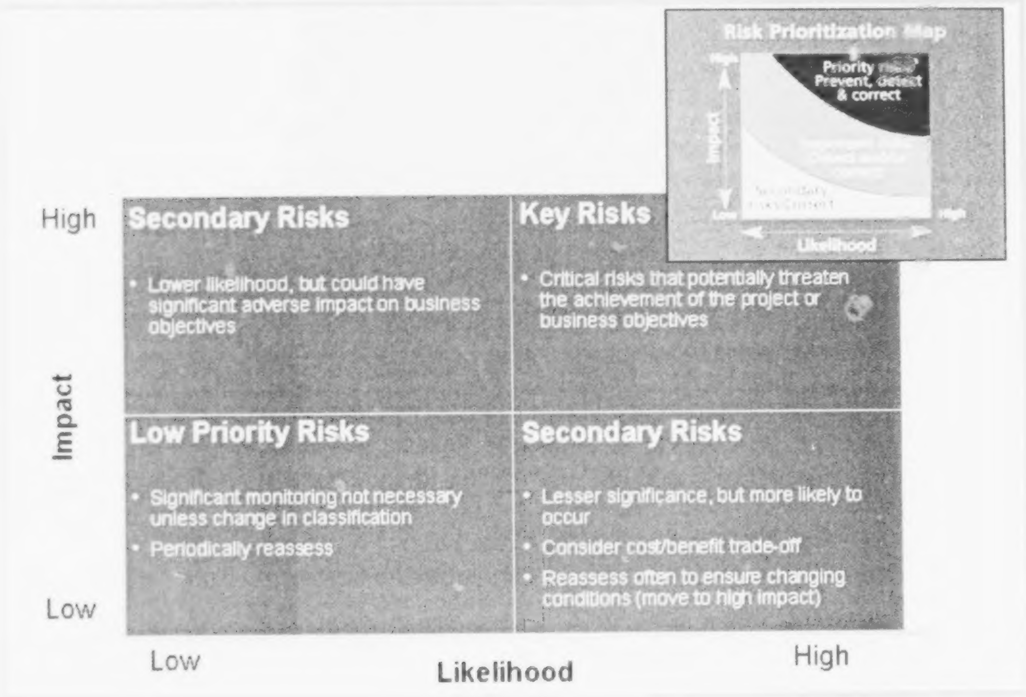

Secondary Risks
- Lower likelihood, but could have significant adverse impact on business objectives

Key Risks
- Critical risks that potentially threaten the achievement of the project or business objectives

Low Priority Risks
- Significant monitoring not necessary unless change in classification
- Periodically reassess

Secondary Risks
- Lesser significance, but more likely to occur
- Consider cost/benefit trade-off
- Reassess often to ensure changing conditions (move to high impact)

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Labour/ Union Relations Risk

Legal and Regulatory Compliance Risk

Natural Hazard Risk

Pollution Risk

Products/ Service Failure Risk

Project Allocation Risk

Site Security and Safety Risk

Supply Chain Risk

Key Risks – Residential Construction Industry	
Health and Safety Risk	Third Party Bodily Injury Risk
Human Resources Risk	Third Party Property Damage Risk
Interest Rate Risk	Vandalism/ Terrorism Risk

These risks are listed in alphabetical order as relative priority will differ by company, project, geography, and other factors. Reference should also be made to the Marsh Risk Inventory, as well as the Residential Construction Industry Risk Inventory for an overview of all risks facing organizations.

For the purposes of this report, risks have been generally categorized into one of seven (7) risk categories: Asset Management Risks; Financial Risks; General Management Risks; Personnel Risks; Products/ Services Risks; Compliance Risks; and Environmental Risks.

Definitions for each risk contained in the above categories are detailed below:

Asset Management Risks: Loss, Damage or Destruction of Physical Property	Impact 3
Construction Accidents Risk	Unintentional damage on or to the construction site and/ or key equipment resulting in delays, or preventing the completion of a project.
Employee/ Third Party Fraud Risk	Fraudulent activities perpetrated by employees, customers, suppliers, agents, brokers or third-parties against the builder for personal gain (e.g. theft of physical, financial or information assets) expose the builder to financial loss.
Natural Hazard Risk	Any act of nature (fire, water, wind, earthquake, temperature etc.) that may significantly impact the successful completion of the project.
Supply Chain Risk	Inability to acquire, transport or deploy required materials and equipment at the right time, location and cost (including property damage to suppliers delaying or preventing delivery) may result in delays and/ or additional costs.
Third Party Property Damage Risk	Damage to third party property at or on the construction site (contractor's plant and equipment) may result in financial damages and/ or construction delays.
Vandalism/ Terrorism Risk	Vandalism, terrorist acts, sabotage, demonstrations, or theft may result in unacceptable downtime or obligations.

Financial Risks: Financial Impact on Organization	Impact 3
Credit (Default) Risk	Inability to adequately assess the creditworthiness of counterparties, suppliers or other key parties may result in default exposure or lack of performance.
Interest Rate Risk	Inability to effectively manage the cost of capital may impair the financial viability of the projects or the builder.

General Management Risks

Impact 3

Business interruption Risk	Failure to effectively plan for and recover from interruptions of operations may impair the builder's ability to meet deadlines and complete a project.
Contractor Performance Risk	Inadequate contractor (subcontractors of any tier) availability or performance, and/ or shortage of craft labour, may result in completion delays, sub-standard materials, unacceptable variations from plans and specs as well as cost overruns.
Cost Overrun Risk	Costs incurred outside of an acceptable range for a project (outside of contingency) may adversely affect return on investment or project completion.
Estimation Risk	Inaccurate estimates with respect to project finance, timeliness, government legislation and surveying resulting in insufficient capital or project delays.
Human Resources Risk	Inability to attract, develop and retain competent people may inhibit the builder's ability to execute, manage and monitor key business activities.
Labour/ Union Relations Risk	Strikes and/ or other collective actions may disrupt operations and achievement of objectives. Limitations in the collective agreements may limit employer operational and human resource flexibility.
Project Allocation Risk	Inability or accidental omission to transfer risk to a viable third party may result in unfavourable exposure to the builder.

Personnel Risks: Injury to Staff or Third Parties

Impact 3

Health and Safety Risk	Failure to adequately promote and protect employees' and contractors' health and safety may result in injury or death and/ or future injury or death to personnel on the construction site.
Site Security and Safety Risk	Lack of site security and safety procedures at the construction site (toxic material handling, site visits, and uncontrolled work environments in remote locations) can cause unexpected injuries to employees, contractors and third parties.
Third Party Bodily Injury Risk	Inability to adequately anticipate, prevent, and mitigate against third party injury (other than contractors) may result in unacceptable obligations (trespassers, neighbours, etc).

Products/ Services Risks: Property Damage of Financial Loss Arising From Products or Services

Impact 3

Products/ Service Failure Risk	Faulty or non-performing products, materials or services expose the builder to customer complaints, warranty claims, field repairs, returns, product liability claims, litigation and loss of revenues, market share and reputation.

Compliance Risks: Failure to Comply – Legislation, Systems, Protocols	Impact 2
Legal and Regulatory Risk	Failure to comply with legal, statutory or environmental regulations may result in fines and penalties, delays in project, create unsafe project work conditions or negatively impact the builder's reputation.

Environmental Risks: Damage to the Environment Arising from Activities, Occupation or Developments	Impact 2
Change in Ground Conditions Risk	Unforeseen ground conditions may result in estimation risks and/ or delays in the pre/ post construction operations.
Pollution Risk	Accidental release of dangerous substances and/ or contaminants caused inadvertently in typical activities (e.g. Bulk fuel storage leakage) can cause environmental damage (e.g. Soil dispersion, sediment movement) and may result in significant financial responsibility.

In Phase 1 of the main report, detailed information is provided for each of the above risks as illustrated in the example below. Case studies including "lessons learned" for each risk are also included.

Risk identification can be accomplished through an early and careful assessment of new projects by individuals who are knowledgeable in the legal, design, and construction processes. Once key risks have been identified, the solutions to mitigate them often become evident. Risk identification is of benefit to builders by potentially reducing costs and avoiding and mitigating major risks.

Example: Summary Description, Business Interruption Risk

Risk Category: General Management	**Average Impact**	3

Definition of Risk

Failure to effectively plan for and recover from interruptions of operations may impair the builder's ability to meet deadlines and complete a project.

Causes

- Damage to the construction site
- Worker and site safety
- Government Acts
- Acts of God
- Union strike and work rules
- Unforeseen site conditions, including environmental conditions
- Occurrence of a natural disaster
- Unavailability of raw materials, information technologies, skilled labour, facilities, utilities or other resources
- Delayed deliveries
- Political climate and interference, community activism
- Site access
- Late or unsuitable owner-furnished material and equipment
- Withdrawal of funding/ unavailability of funds

Recommendations and Mitigation Strategies

Identify and measure risk exposures

Contingency Planning

No key supplier dependency

Policies and Procedures

Rebuild, Repair or Relocation capabilities

Phase 1 environmental assessments

Physical security

Insurance Solutions

All Risks Property Insurance endorsed with Business Interruption Coverage

- Business Interruption forms to include Extra Expense and Professional Fees

All Perils Builders Risk Insurance endorsed with Builders Risk Soft Costs Coverage

- Limit of coverage should equal the total of hard costs (physical loss) and soft costs (increased labour costs, construction delay, etc.) for adequate coverage

Phase 2: Variability in Insurance Parameters

In Phase 2 of this project the current state of the insurance market for builders is examined. Builders are currently facing a number of insurance issues as outlined below:

Schedule of Current Issues

1. Reduction of Coverage Limits
2. Increased use of Warranties
3. Refusal of Coverage
4. Significant Premium Increases
5. Increase in Deductibles
6. Insurer Exit from Class
7. Selective Underwriting
8. Non-Submitted Losses

Each of these issues is defined, and the causes and impact of each on a builder's insurance program are detailed starting on Page 57 of the main report. Analysis of improving insurance market conditions, such as increased capacity and stability of rates, are also examined.

The following insurance policies are available to builders:

Competitive/ Private

All Risk Property Insurance
Contractors Equipment Floater
Builders Risk Soft Cost Coverage
Commercial General Liability
Tenants Legal Liability
Employers' Liability
Excess Liability Coverage
Wrap-up General Liability Coverage
Contractors Pollution Liability
Force Majeure Insurance
Inherent Defects Insurance
Automobile Insurance
Directors & Officers Liability Insurance
Builders Risk Insurance
Business Interruption Coverage
Property in Transit
Contractual Liability
Non-Owned Automobile Liability
Owners' and Contractors' Protective Liability
Umbrella Liability Coverage
Contractors Professional Liability
Delayed Completion/ Liquidated Damages
Combined Delayed Completion/ Force Majeure
Contractors Default Insurance
Surety Bonds (Not Insurance)

Non-Competitive/ Public

Workers Compensation
Provincial Automobile Insurance

Knowledge of all available insurance forms is important, however understanding the applicability of each is critical. A Risk Allocation table is provided starting on Page 100 of the report which identifies the various parties in a project and the applicability of insurance policies for each.

Once the type of insurance policy is determined, builders must decide on an appropriate limit of insurance to purchase. While no guarantees can be provided as to the exact level of insurance to obtain, certain procedures or principles should be followed in order to assist in determining an insurance limit that falls within the builders' risk appetite.

Property Insurance

- Create an inventory of all property owned and leased
- Estimate the cost to replace all property based upon current replacement value
- Include an inflation factor to the end of the policy term
- Add up the estimated replacement value of all property
- The total is the minimum required limit of coverage

Builders Risk Insurance

- Refer to construction documents
- Determine total cost of project, including hard costs and soft costs
- Include an allocation for incorrect estimates
- Total construction value and allocations is appropriate limit of coverage

Contractors Equipment Floater

- Create an inventory of all equipment owned, leased or in the care of the builder
- Include all locations, sites and storage areas for all equipment
- Confirm terms of coverage for Replacement Cost (RC) and Actual Cash Value (ACV)
- Estimate current value of all equipment qualified for ACV
- Estimate current value of all equipment qualified for RC
- Total values of all ACV and RC qualified equipment is appropriate limit of coverage

Business Interruption Coverage

- Use Business Interruption worksheet
- Consult financial statement to complete the sheet or use accountant service
- Value indicated on the worksheet is the correct limit of coverage

Builders Risk Soft Cost Coverage

- Consult construction documents to determine soft costs
- Add soft costs to the value of hard cost construction for the largest single project of the year
- Ensure Builder's Risk limit of coverage includes soft costs
- Choose indemnity period based on these factors:
    (i) Time necessary to reconstruct
    (ii) Delay in reconstruction term
    (iii) Investigations and settlements
    (iv) Correction of any defects or errors uncovered by investigation

Property in Transit

- Consider the work involved in the project
- Review value of all products/ equipment to be transported to/ from the site
- Determine the largest single transportation during the course of the project
- Limit should at minimum reflect the largest single transportation

Commercial General Liability (CGL)

- At a minimum, the limit should conform to contract specifications
- Use benchmark information from broker to establish norms for your business size and operation
- The average limits established by the analysis should be a guide only
- Always procure a limit that is as much as is available and affordable

Excess and Umbrella Liability

- Purchase sufficient limits to at least conform to contract specifications
- Obtain as high a limit as is available in the market and affordable

Wrap-up General Liability

- Consider the total number of project participants including all trades and consultants
- Consider the size and duration of the project
- Purchase a significant limit of coverage based on these facts
- Always buy a limit that is higher than you think is necessary

Contractors Professional Liability

- At a minimum, limit must meet any contractual obligations
- Should also be at least equal to your CGL limit
- Purchase as much as is available and affordable

Pollution Liability

- At a minimum, limit must meet any contractual obligations
- Should also be at least equal to your CGL limit
- Higher hazard work should require a higher limit of coverage

Specialty Coverages

- These coverages are often available in specified limits from the insurer
- Limit should also match the exposure as measured through proper analysis
- Obtain as much coverage as is affordable and available

Automobile Insurance

- Third Party Liability should match the limit of General Liability
- Excess Automobile Liability should match Excess or Umbrella Liability limits
- For all endorsements limiting physical damage, choose a limit sufficient to cover all operations
- For endorsements with varying limits, purchase the maximum available from the insurer

Phases 3 & 4: Non-Traditional Insurance

When the purchase of traditional insurance does not make economic or practical sense, non-traditional alternative program structures might be considered. Such non-traditional programs include:

Single Insured Programs	Group Programs	Captive Programs
Finite Risk	Reciprocal Insurance Exchange	Single Parent Captive
	Group Funded Deductible	Group Captive
		Rent-A-Captive
		Protected-Cell Captive

The fundamental difference between single insured programs and group programs is that group programs involve the sharing of risk among participating members.

Each program type is further detailed highlighting the purpose/ overview and next steps for implementation with each in the main body of the report.

Finite Risk

Definition	Finite risk is an insurance market concept that blends formal funding for self-insured risks with a limited element of risk transfer. Traditional insurance underwriters spread the losses of a few insureds over a much larger number of policyholders. In contrast, finite risk underwriters spread the losses of one insured over time.

Reciprocal Insurance Exchange

Definition	Reciprocals are licensed insurers. All provinces and territories have enabling legislation in place for reciprocals. Like conventional insurers that offer insurance to the public, the reciprocal will be monitored on a continual basis by the territorial Superintendent of Insurance. The reciprocal would conduct its business through an attorney-in-fact that acts as an agent of each subscriber within the program.

Group Funded Deductible

Definition	A group funded deductible program is very similar to a reciprocal or group captive with the exception that there is no licensed entity formed to hold the risk of the group.

Single Parent Captive

Definition	A single parent captive is a separate legal entity that insures the risks of its parent company and the parent company's other subsidiaries. It is usually established as a subsidiary of the parent company.

Group Captive

Definition	In a group captive, the captive underwrites the risks, determining the appropriate premium for the risks and exposures to risks of each of its members. The members share in the profits and the losses of the group in proportion to the size of their individual shares.

Rent-a-Captive

Definition	A rent-a-captive is, in essence, an insurer organized to insure risks of unrelated shareholders. It is generally controlled by an organization looking to profit from fees paid by participants, an insurer looking to enhance its insurance-product offerings, or an insurance broker looking to enhance its client services. Unlike single parent captives and group captives, the interests of the owner or owners do not coincide with those of the participants.

Protected-Cell Captive

Definition	The protected cell (or segregated cell) captive can be considered an alternative form of a rent-a-captive. This form of structure is characterized by legal separation between each of the underwriting accounts, or "cells," within the captive and between the insured and the owner. This separation applies to both liabilities and assets.

The various forms of captives are the most popular method of facilitating non-traditional insurance.

Captives are often viewed as the privilege of the large organization, an option available and viable only for the largest Canadian corporations. This is a misconception. In fact, there are a variety of captive configurations. The single parent captive is best suited to larger organizations ($500,000 of insurance premiums or greater), but there are also group captives and rent-a-captives available to mid-size ($250,000 of insurance premiums to $499,000 of insurance premiums) and small organizations (less than $250,000 of insurance premiums).

The benefits and costs or drawbacks of captives must be understood before embarking on this means of financing.

Benefits

Cost Stabilization	Companies saw the cost of insurance in the commercial market increase significantly during 2001 through 2003. On the other hand, the long view looking back more than 15 years since the last hard insurance market reveals that premiums were dropping almost as precipitously then as they subsequently rose. The current hard-market cycle has brought insurance rates back up to early 90's levels. When an organization funds its own risks with a captive, those peaks and valleys can be smoothed and the overall cost should be less than in the commercial insurance market.
Cost Reduction	Premiums offered by commercial insurers theoretically include the cost of losses, the insurer's expenses and a margin for-profit. Expense ratios for commercial insurers tend to be in the range of 30 per cent to 40 per cent of premium. In contrast, the expense ratios for a captive tend to be much lower as low as 10 to 15 per cent or even less. In addition, insurers invest premium dollars before they are paid out as losses. With a captive, investment income is captured by the owner.
Coverage Availability	In a soft insurance market, coverage is cheap and plentiful. In a hard insurance market, some coverage is expensive and sometimes not available from commercial insurers at any price. Captive owners have the ability to determine what coverages the captive will provide.
Capacity for Higher Limits from Reinsurers	Captive insurers can deal with reinsurers, often availing themselves of the expertise of reinsurance intermediaries. This provides them with the ability to purchase higher limits from sources not directly available to most insureds, perhaps more affordably than commercial insurers.
Tax Savings	If you self-insure, you need to predict and accrue for losses as soon as their potential is known, but you cannot take a tax deduction until the losses are actually paid. Under a properly structured captive arrangement, the premiums paid to the captive are tax deductible. Additionally, the captive structure accelerates the deduction for losses, as the captive is able to establish reserves for ultimate projected losses on its income statement immediately, rather than when the losses are paid. However, tax treatment of captives is a complex issue, so this is not a given. (Members should consult with a professional tax advisor for advice on this matter, but for some general information, see "Tax Implications" later in this report.)
More Control	All of the benefits addressed above lead to more control; what insurance coverage will be available, when premiums are paid, how premiums are invested, and more are within a captive owner's control.

Costs

Time Commitment	The process of first determining if a captive makes sense and then establishing a captive requires a serious time commitment. Once a captive is formed, an organization may need to devote more time to the ongoing oversight of the captive.
Up-Front Cost	Determining the feasibility of a captive requires a thorough analysis of losses, claims-handling expenses, tax implications, and other factors. Most organizations do not have the in-house expertise to conduct this analysis. This means hiring someone to do the job and paying for it. If a feasibility study indicates that a captive is a viable alternative to commercial insurance, incorporation cost will be incurred.

Costs	
Opportunity Cost	The funds allocated to capitalizing a captive will not be available for use as working capital, to retire long-term debt, to repurchase common stock, or to fund long-term investments that might generate a higher return.
Unacceptability to Some Third Parties	Insurance through a captive may be unacceptable to regulators or to some vendors and customers. And some organizations require certificates or other evidence of insurance to be issued only by insurers with certain minimum ratings by one or another rating service. This "unacceptability" factor can be overcome with the use of a "fronting company" or "fronting insurer"- a commercial insurer willing to produce insurance policies and issue certificates of insurance, even though the captive pays the claim in full. Commercial insurers, however, charge a fee for this service, which increases the cost of using a captive. (See "Fronting Arrangements" later in this report.)
Risk of Adverse Loss Experience	Most captives are formed based, in part, on the assumption that future losses will be similar to past losses, but it is impossible to predict when there will be an ice storm, a major lawsuit, a terrorist attack, or some other catastrophic event. For captives writing risk not previously self-insured, by the parent or by subsidiaries, there is the potential for increased cost associated with such unexpected adverse loss experience. If a major catastrophe or a high frequency of smaller losses should occur just after a captive owner has implemented their program, it could take some time to catch up to a break-even point.

Several additional issues must be reviewed when considering captives. These issues are addressed in detail in the report, but can be summarized as follows:

- Domicile of captive (where to incorporate)
- Fronting arrangements (if the captive provides reinsurance rather than direct insurance, a "fronting" insurer must be arranged for licensed and admitted insurance)
- Reinsurer issues (who manages, strength of captive financial statements, risks to insure, actuarial reports, etc.)
- Tax implications

Establishing and operating each of the non-traditional insurance programs requires capital investment. Single parent captives and group captives require substantial capital investments and set-up costs in relation to the other non-traditional insurance programs. The rent-a-captive program is the most economical option in terms of capital requirements, operating and set-up costs.

It is important to obtain legal and accounting advice, as well as undertake a proper feasibility study before determining the appropriateness of any non-traditional insurance program as costs vary by company, jurisdiction, purpose, insurance coverage, and other variable factors. The table below on the following page is for general comparison purposes only, and does not represent a proper feasibility study.

Operating Cost Component	Reciprocal	Group Funded Deductible	Single Parent Captive	Group Captive	Rent -a- Captive
Operating Costs					
Premium Tax	3 per cent of premium	Dependent on legal advice	3 per cent of premium	3 per cent of premium	3 per cent of premium
Fronting Fee	0	0	7 per cent of premium	7 per cent of premium	7 per cent of premium
Letter of Credit	Cost driven by size of program	Cost driven by size of program	Cost driven by size of program	Cost driven by size of program	Cost driven by size of program
Management Fee	$100,000	$100,000	$50,000	$100,000	$10,000 - cost is allocated
Annual Audit Fee	$10,000	$10,000	$7,500	$10,000	$1,000 - cost is allocated
License Fee	Yes, varies by province	0	$2,500	$2,500	0
Outside Director Fee	$2,500	0	$2,500	$2,500	0
Company Secretary Fee	$2,500	0	$2,500	$2,500	0
Annual Meeting Expenses	0	0	$2,500	$2,500	0
Capital Charge	n/ a	n/ a	0	n/ a	Cost driven by size of program
Set-Up Costs					
Minimum Capital Requirements	May be dictated by regulator	Not regulated	$300,000	$300,000	0
Consulting Fees	Cost driven by number of members	Cost driven by number of members	$10,000	Cost driven by number of members	0
Legal Fees (Incorporation/ Licensing)	$25,000	0	$25,000	$25,000	0
Legal Fees (Subscribers' Agreement)	Cost driven by complexity of program	Cost driven by complexity of program	n/ a	Cost driven by complexity of program	n/ a
Opening Balance Sheet Audit	$2,500	$2,500	$2,000	$2,500	0

In order to determine the effectiveness of a captive insurance program, there are three (3) steps involved:

- Feasibility: performing a feasibility study to determine if a captive will work for your organization;
- Implementation: selecting vendors or personnel to run your captive; negotiating fronting programs; and
- Management: launching your captive.

Each of these steps is explained in detail in the report.

Phase 5: Information Product

An information product based on the results of this research has been developed. This product can be distributed to builders to provide a comprehensive "How To" guide to managing risk in the Residential Construction Industry. The following frequently asked questions are the main body of the information product.

€ **What risks should I be concerned with that may or may not be covered by insurance?**

A typical insurance program focuses on the physical risks that face your business. These are risks that occur as a result of damage to the work or damage and bodily injury to third parties. Figure 5.2.2 lists key risks that are potentially insurable in whole or in part.

However, there are many risks that are not covered by insurance. Some common examples are listed in Figure 5.2.3.

€ **What types of insurance cover my key risks?**

There are some general insurance policies and special insurance policies that may address some of the key risks not covered by traditional insurance programs. Unfortunately, there is no insurance that will cover all risks.

Figure 5.2.4 details insurance policies available to builders.

€ **Who do I call to arrange insurance for a homebuilding project?**

The only way to properly arrange coverage for your project and ensure you get the best advice, value and protection is to contact an independent insurance broker that specializes in the residential construction industry. Consult the directories of members and suppliers published by the CCA or other local residential construction industry associations.

€ I'm sure insurance will be very expensive.

Unfortunately, the years 2001 through 2003 saw drastic increases in the cost of insurance, not to mention the availability and variability of policies. The term "expensive" is relative to each individual business. There is definitely a cost associated with purchasing insurance and that cost will fluctuate over time, sometimes drastically. However, depending upon project specifications, limits and type of coverage, general insurance will cost about 1% to 2% of the total cost of the homebuilding project.

€ How many insurance companies provide coverage for builders?

In 2004, there are about 38 different insurance organizations providing various types of insurance coverage to builders.

€ My Insurance Company always asks if my subcontractors carry insurance. Is this necessary? Should I require subcontractors to have insurance?

Insurers ask about subcontractor coverage as a means of knowing that if the insurer pays claims for which the subcontractor was responsible, the insurer will be able to recover its loss from the subcontractor's insurer.

It is not absolutely necessary for insurers to do this, but most insurers do because it is an important element to the profitability of the organization, so it can rarely be avoided.

You should indeed require your subcontractors to carry insurance. In the event that a subcontractor causes a loss, you need the security of knowing there are resources to pay for the loss and keep the project on schedule. If your subcontractors have no insurance, either your organization or your insurance program will have to absorb losses caused by the subcontractors. Even if those losses are insured, you would be incurring any resulting reduction in availability of coverage or increase in premium. In order to protect your business from unnecessary expenses, demanding insurance from subcontractors is a must.

€ What type of insurance and what limits should I ask of subcontractors?

It is recommended that you require at least $2,000,000 of commercial general liability Insurance from subcontractors. Subcontractors should also show evidence of sufficient property insurance to cover their own tools, equipment and products used at the site. Automobile insurance should be carried and evidenced at $2,000,000.

In addition, you should require that your subcontractors add your firm as an "additional insured" to their policies with respect to any work done by the subcontractor on your projects. The benefit of this action is that if the subcontractor causes a loss and you are named as a defendant in the suit, the subcontractor's policy will provide your defence and you avoid making a claim from your own insurer for an incident that was not your fault.

Finally, the subcontractor should show that every effort will be made by its insurance company to advise you of any changes in the subcontractor's coverage or the cancellation of such coverage. It would not be reasonable to ask for guaranteed notice because the subcontractor's insurer will most likely refuse to provide it. See Figure 5.7 for Insurance Contract Requirements.

- **How do I get proof that my subcontractors are carrying insurance and keeping that insurance in place?**

The best proof is to request a certificate of insurance that evidences all of the coverages and specifications noted in the question above.

For extra security, ask that the certificate be signed by the insurance company, not the subcontractor's at your projects. The benefit of this action is that if the subcontractor causes a loss and you are named as a defendant in the suit, the subcontractor's policy will provide your defence and you avoid making a claim from your own insurer for an incident that was not your fault.

Finally, the subcontractor should show that every effort will be made by its insurance company to advise you of any changes in the subcontractor's coverage or the cancellation of such coverage. It would not be reasonable to ask for guaranteed notice because the subcontractor's insurer will most likely refuse to provide it. See Figure 5.8 for a Sample Certificate of Insurance Checklist.

- **What is not covered by the insurance provided by my subcontractors and architects?**

Generally speaking, your subcontractors will be able to cover all of the same incidents that are not covered by your own insurance program. The key risk with subcontractors is the warranty period. Since the subcontractor will not be covered for the warranty by its insurer, it is important to ensure it has the resources to meet its warranty requirements under the contract.

Your architect's insurance policy may not cover it for design errors that have not yet caused any physical damage to the project. It is important to check this out before beginning design work.

- **What if my subcontractor refuses to provide the amount of insurance that I require?**

If the subcontractor refuses, you have the option of refusing to contract with the subcontractor. However, this may not be desirable depending upon your relationship with the subcontractor, the cost of work and the quality provided by the subcontractor. This is an individual choice that you must consider for your given circumstance. Insurance professionals recommend that certificates are absolutely mandatory.

- **I hear insurance companies won't cover the full value of my project. Is this true?**

Each insurance company has its own maximum capacity when it comes to property insurance. Capacity simply means the maximum limit of insurance the company can offer on a specific property or project. If the value of your project exceeds your insurer's capacity, it will indeed not be able to offer coverage on the full value of the project.

In such circumstances, you have a few options. First, you can investigate alternate insurance companies. If capacity is still not sufficient, your broker can arrange primary/ excess insurance or pro-rata insurance among two or more insurance companies.

However, even using excess or shared programs, you may still have a project where the value exceeds the capacity of available insurance companies. In such cases, you are left with little choice but to organize the construction schedule in such a way that your exposed values never exceed your maximum limit of insurance.

There are various ways you can help increase your insurer's capacity. Providing excellent site security, most notably fire prevention, is the best way. In addition, if you create gaps in your construction plan, such as never building more than six houses before leaving a two house gap in all directions, your insurer will be able to add more capacity, plus you will be reducing your exposed values and keeping within any capacity restrictions that do occur.

€ **Does Builders Risk coverage also cover Business Interruption like my regular property insurance?**

Yes, Builders Risk policies provide a form of Business Interruption coverage known as "Soft Costs" and/ or "Delayed Start-up Coverage". Essentially, these coverages will compensate you for the additional expenses created due to the delayed completion of the project resulting from a loss that is covered by the Builders Risk policy. Soft costs will cover you for all expenses not directly related to the "brick and mortar" of the job, such as financing expenses, legal fees and design costs.

€ **What if I incur additional expenses because the project is completed late?**

If the project is completed late simply because you failed to meet your schedule, there is no form of coverage available. There are special forms of coverage known as "Delayed Start-up" for Owners and "Liquidated Damages" for Contractors, along with Force Majeure insurance and combined polices. These policies will provide coverage for delays that are not the result of physical damage covered by a Builders Risk policy, but only for certain specified perils. Such policies are difficult to procure and come at an expense, with very detailed underwriting requirements such as legal and financial review in advance of the start of the project.

€ **Can I get insurance to cover the contract warranties?**

This question can be misleading as it can be interpreted in two ways. Warranties and guarantees provided by the builder, such as the builder warrants the home will be free of defects for a period of one year, are not covered by general insurance policies.

When the builder is required to do work to a completed house under the warranty provisions, if that work causes a loss, such as an electrician starting a fire, the loss is covered by the builder's insurance program subject to all the usual terms and conditions of the policy.

€ **My insurance company makes me sign a lot of "Warranties". Some of the requirements are very difficult to meet. Is this truly necessary?**

The warranties referred to here are promises you make to the insurance company to conduct your work in a certain way, on the knowledge that if you break that promise you will not be covered for the loss. These warranties are therefore very serious and must be adhered to with diligence.

It is true that some warranties are very onerous. Insurers feel the warranties are necessary as a means of ensuring that builders will take certain precautions to avoid preventable losses. The onerous nature of the warranties puts the builder in a position where its greatest interest lies in protecting the project.

Warranties provide absolutely no benefit to the builder. Therefore, you should avoid warranties as much as possible. If your insurer is requiring too many warranties with conditions that are unsatisfactory to you, then it is advisable to obtain quotes from other insurers. In some cases, if you can trade a little more premium for fewer warranties, it is beneficial.

Ultimately, there are a certain number of warranties you will have to accept in order to arrange for your insurance coverage. Please be sure you read, understand and conform to these warranties for the entire duration of your project.

€ **How much liability coverage should I buy for my business?**

It is difficult to prescribe a specific amount of liability because it is impossible to know how catastrophic a loss may become. The general rule of thumb is to buy as much coverage as is readily available and affordable. Your broker can help you make that choice.

It is also advisable to obtain "benchmark" information and find out what maximum and average limits of liability are purchased by other companies of your size and operation. Your broker has this kind of detail.

€ **Will purchasing liability insurance cover my subcontractors and trades people?**

Your liability insurance will cover your vicarious liability arising from the work or operations of your subcontractors. In other words, your policy will protect you from work done by your subcontractors, but it will not protect your subcontractors, they must buy their own policy.

€ **What is "Contractual Liability"? Does that mean I am covered for all the liability assumed under a contract?**

Contractual Liability coverage will provide coverage for property damage or bodily injury for which you are liable by virtue of liability you assumed under a contract, rather than liability that attaches due to your negligence. The key is that there must be bodily injury or property damage. Pure financial loss or other contractual disputes are not covered.

You may not be covered for all contracts. It is important to check your policy and determine if contractual liability applies only for "insured contracts", "scheduled contracts" or "blanket contractual".

€ **What is "Wrap-up" coverage? Do I need to buy it?**

Wrap-up coverage is single-project liability insurance that provides limits of liability to the specific project on a primary basis covering all participants in the project, including owners, contractors, subcontractors and consultants, for general liability exposures. The key advantage is that the limits of liability are dedicated specifically to the contract and therefore aggregate limits are not eroded by losses occurring at other projects for which the participants may be liable.

The need for wrap-up varies with each different situation. Consult with your broker to determine your specific needs.

The benefits are knowing that all participants are covered, limits are dedicated only to your project and you avoid the administrative burden of obtaining and verifying certificates from all of your subcontractors.

€ **What is "Completed Operations"?**

Completed Operations refers to the risk of loss arising from the work you perform following the completion of that work, provided the work is done away from your premises.

€ **If I make a claim, will I still be able to buy insurance next renewal?**

Unfortunately, there is no definitive answer to this question. If you were to make one claim, there is no reason why your insurance program should not be renewed the following year. Insurers understand that claims will occur and that the purpose of insurance is to use the premiums of the many to cover the losses of the few.

€ **How will my premium be affected by a claim?**

Your premium should not be adversely affected by one claim in a given period of three years or more. You may incur one claim and find your premium increases at renewal, but that may be an increase reflecting underwriting and claims trends across the entire industry, not your specific loss.

However, if you have several losses, insurers may determine that your business does not exercise sufficient loss prevention measures. Under these circumstances, insurers are more likely to cancel your program at renewal because without proper loss control, claims will continue to occur. Frequent claims distort the ability to use premiums of the many to pay for the losses of the few.

By accepting reasonable deductibles and exercising loss prevention, you can reduce your likelihood of incurring a claim, helping to ensure you can benefit from the best rates available.

€ **Should I pay my own claims if they are not too much more than the amount of my deductible?**

In theory, if you purchased an insurance policy and you incur a claim that is covered by that policy, you should not pay for it otherwise you are defeating the purpose of buying that very policy.

However, as noted in the previous question, claims frequency can negatively affect your ability to obtain insurance at an affordable rate. Therefore, if your loss is only slightly higher than your deductible, and you can absorb that loss without great financial stress then you should indeed pay that loss as it will bring you more benefit in the long run.

Under such circumstances, you should consider increasing your deductible and gaining even more benefit by the reduction in premium associated with the deductible increase. If you are going to absorb losses to a certain level anyway, it is best to set your deductible at that level. Once you have done that, then it is best to submit every loss to your insurer. Far fewer losses will qualify which means your insurance record will be protected.

€ **Why should my insurance program be affected if my subcontractor caused the claim to occur?**

If your program responds for your benefit on a loss caused by your subcontractor, your program has to be affected because you are relying upon it to protect your vicarious liability.

You can avoid this by ensuring that your subcontractors carry insurance and that you are added to that insurance as an additional insured. This way, your subcontractor's insurer will protect your vicarious liability and you do not have to put your insurance record in jeopardy.

€ **What if my subcontractor has a claim, but does not have any insurance? How do I protect myself?**

Your liability policy will protect you for the vicarious liability arising out of the negligence of your subcontractors. You will be protected, but your subcontractor will not.

Marsh Canada Limited has performed this Variability in Construction Insurance and Alternative Insurance Solutions study on a best efforts basis. Marsh Canada Limited believes the information herein to be accurate as of the date of this report, however this information is time-sensitive and is subject to change.

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1

Phase 1: Risk Analysis and Identification

Builders currently may have limited financial protection against many serious accidental loss scenarios. Further, there is not necessarily a strong recognition of their impact, or awareness of the application of insurance in response to risks.

Wherever we use the term "builder" in this document, we mean "new home builder or renovator".

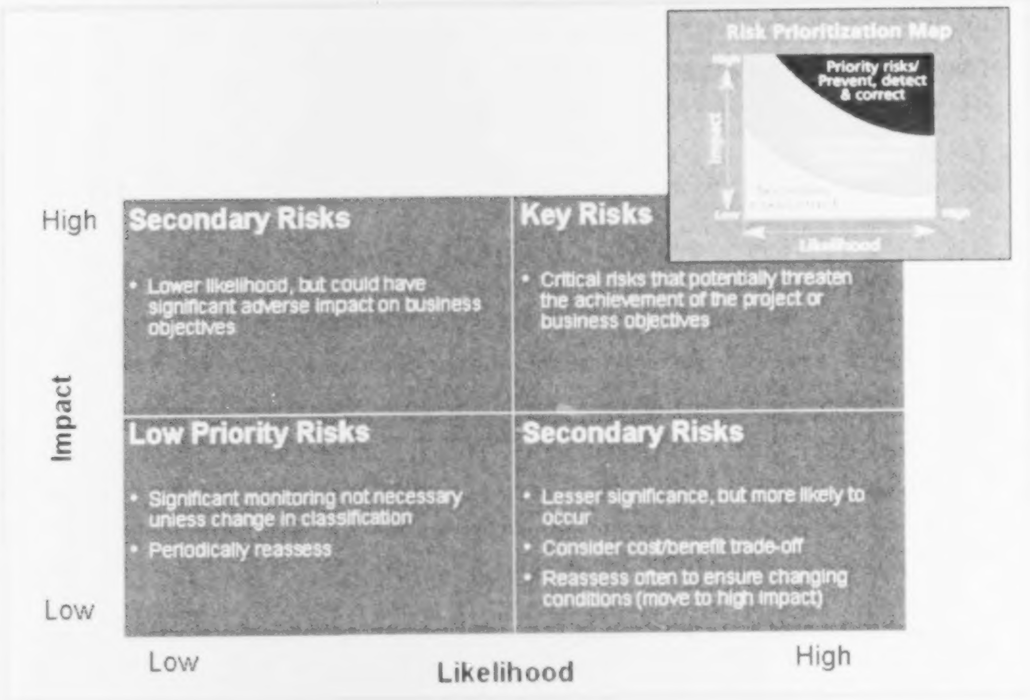
Risk Analysis

The relevance and impact of each of the key risks identified in this section will vary based on the individual builder risk profile. Impact and relative ranking of these risks are dependent on the scale of a builder/ company and project and their individual risk management environment. For example, some firms might be tolerant of risk, that is, willing to accept certain risks based on their ability to control or manage the risk, or their financial capability to retain the risk.

Figure 1.1 illustrates how individual risks can be graphically represented, using a risk map. A risk map displays risks using measures of impact on the organization and likelihood of such risk taking place over a defined period of time. Using a simple map, risks that plot in various areas should be managed and treated differently. As illustrated, a risk in the upper right hand area of the map, or key risk , is a critical risk that potentially threatens the achievement of the project or overall business objectives.

The risk categories identified contain risks in all four quadrants of the risk prioritization map; however, we have identified risks that are likely to be secondary or key risks. This means that they will all fall in one of the two upper quadrants of the risk prioritization map. A secondary risk has either a lower likelihood of occurrence or has of less impact than a key risk, but could have a significant adverse impact on business objectives if it was to occur.

Figure 1.1: Risk Prioritization Map


Risk Prioritization Map
High
Priority risks/ Prevent, detect & correct
Impact
Low
High
Likelihood
High
Low
Impact
Low
High
Likelihood

Secondary Risks

- Lower likelihood, but could have significant adverse impact on business objectives

Key Risks

- Critical risks that potentially threaten the achievement of the project or business objectives

Low Priority Risks

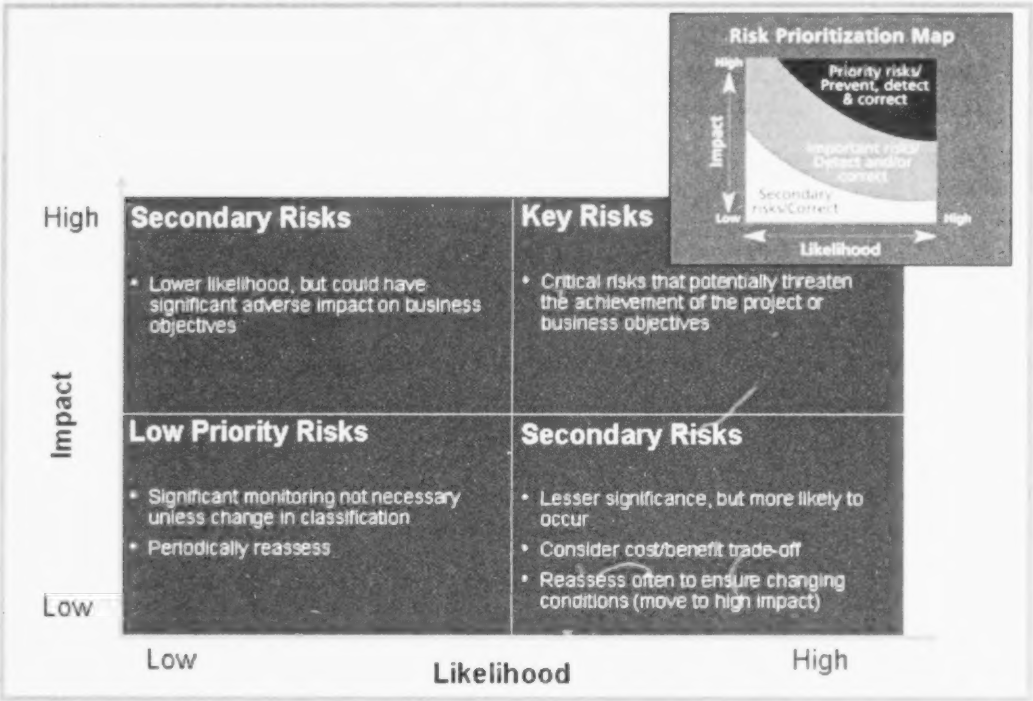
- Significant monitoring not necessary unless change in classification
- Periodically reassess

Secondary Risks

- Lesser significance, but more likely to occur
- Consider cost/benefit trade-off
- Reassess often to ensure changing conditions (move to high impact)

Figure 1.2 illustrates a key risk in the upper right hand corner. Risks mapped in this upper right hand corner are considered more severe in impact and likelihood of occurrence, meaning that they would have a greater impact on the operations of the builder than risks in the bottom left corner.

Figure 1.1: Risk Prioritization Map



Secondary Risks

- Lower likelihood, but could have significant adverse impact on business objectives

Key Risks

- Critical risks that potentially threaten the achievement of the project or business objectives

Low Priority Risks

- Significant monitoring not necessary unless change in classification
- Periodically reassess

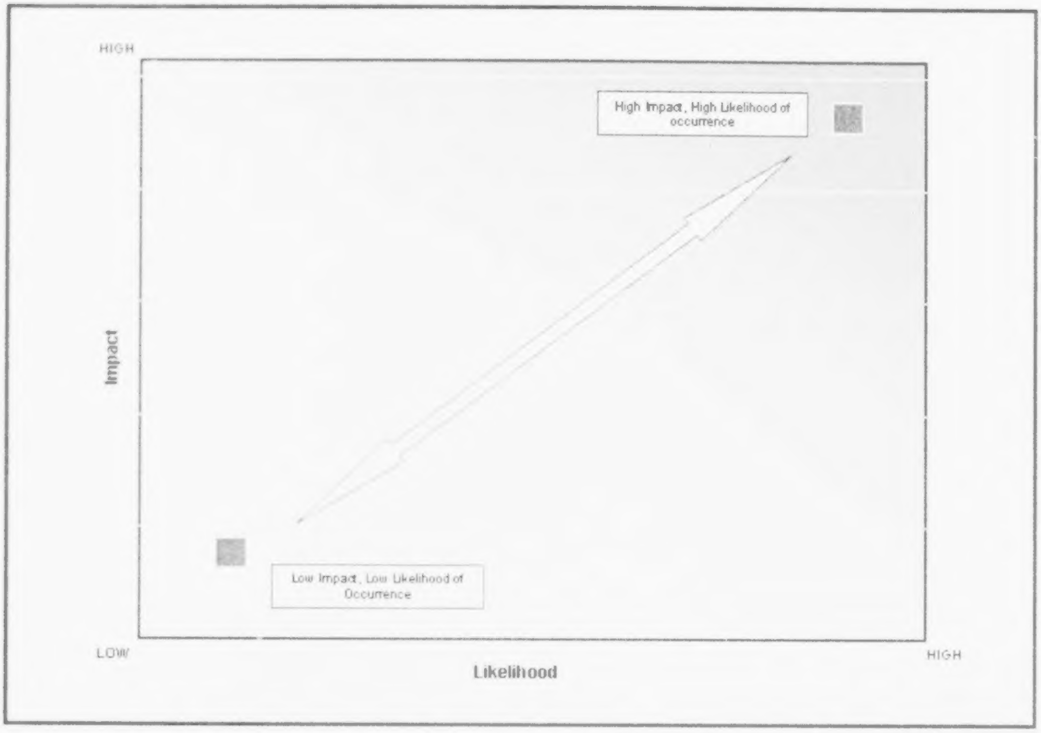
Secondary Risks

- Lesser significance, but more likely to occur
- Consider cost/benefit trade-off
- Reassess often to ensure changing conditions (move to high impact)

High
Impact
Low
Low
Likelihood
High
Risk Prioritization Map
High
Impact
Low
Priority risks/ Prevent, detect & correct
Important risks/ Detect and/or correct
Secondary risks/Correct
High
Likelihood

Figure 1.2 illustrates a key risk in the upper right hand corner. Risks mapped in this upper right hand corner are considered more severe in impact and likelihood of occurrence, meaning that they would have a greater impact on the operations of the builder than risks in the bottom left corner.

Figure 1.2: Low Impact versus High Impact


HIGH
High Impact, High Likelihood of occurrence
Impact
Low Impact, Low Likelihood of Occurrence
LOW
Likelihood
HIGH

Risk Identification

Utilizing research and proprietary benchmarking data, Marsh has estimated an impact approximation for each category of risk. For the purposes of assessing the impact of each category of risk, we have considered the underlying impact of each risk in that category on an organization's ability to achieve its business goals and objectives. The risk categories have been rated (on a scale from one to four) according to an average impact risks in that category could have if there were no controls or only minimal controls in place ("inherent risk").

Criteria to be considered when assessing the impact of a risk to an organization can include but are not limited to financial implications; business continuity implications; regulatory implications; environmental implications; branding implications; and personnel safety implications. Figure 1.3 further defines each of the relative impact measures.

Figure 1.3: Risk Impact Measures

Rank	Impact	Criteria
4	Catastrophic	On average, this category of risks could have a catastrophic impact on defined criteria of organization.
3	High	On average, this category of risks could have a high impact on defined criteria of organization.
2	Moderate	On average, this category of risks could have a moderate impact on defined criteria of organization.
1	Low	On average, this category of risks could have a minimal impact on defined criteria of organization.

Key risks facing the Residential Construction Industry are identified and defined in practical terms in Figure 1.4. These risks are listed in categories in alphabetical order as relative priority will differ by company, project, geography, and other factors. Based on these variable factors, certain additional risks could be deemed to be more applicable to various builders. As such, reference should also be made to the Marsh Risk Inventory in Appendix A, as well as the Residential Construction Industry Risk Inventory in Appendix B, for an overview of all risks facing organizations.

Figure 1.4: Key Risk Categories

Asset Management Risks: Loss, Damage or Destruction of Physical Property	Impact 3
Construction Accidents Risk	Unintentional damage on or to the construction site and/ or key equipment resulting in delays, or preventing the completion of a project.
Employee/ Third Party Fraud Risk	Fraudulent activities perpetrated by employees, customers, suppliers, agents, brokers or third-parties against the builder for personal gain (e.g. theft of physical, financial or information assets) expose the builder to financial loss.
Natural Hazard Risk	Any act of nature (fire, water, wind, earthquake, temperature etc.) that may significantly impact the successful completion of the project.
Supply Chain Risk	Inability to acquire, transport or deploy required materials and equipment at the right time, location and cost (including property damage to suppliers delaying or preventing delivery) may result in delays and/ or additional costs.
Third Party Property Damage Risk	Damage to third party property at or on the construction site (contractor's plant and equipment) may result in financial damages and/ or construction delays.
Vandalism/ Terrorism Risk	Vandalism, terrorist acts, sabotage, demonstrations, or theft may result in unacceptable downtime or obligations.

Financial Risks: Financial Impact on Organization	Impact 3
Credit (Default) Risk	Inability to adequately assess the creditworthiness of counterparties, suppliers or other key parties may result in default exposure or lack of performance.
Interest Rate Risk	Inability to effectively manage the cost of capital may impair the financial viability of the projects or the builder.

General Management Risks

Impact 3

Business Interruption Risk	Failure to effectively plan for and recover from interruptions of operations may impair the builder's ability to meet deadlines and complete a project.
Contractor Performance Risk	Inadequate contractor (subcontractors of any tier) availability or performance, and/ or shortage of craft labour, may result in completion delays, sub-standard materials, unacceptable variations from plans and specs as well as cost overruns.
Cost Overrun Risk	Costs incurred outside of an acceptable range for a project (outside of contingency) may adversely affect return on investment or project completion.
Estimation Risk	Inaccurate estimates with respect to project finance, timeliness, government legislation and surveying resulting in insufficient capital or project delays.
Human Resources Risk	Inability to attract, develop and retain competent people may inhibit the builder's ability to execute, manage and monitor key business activities.
Labour/ Union Relations Risk	Strikes and/ or other collective actions may disrupt operations and achievement of objectives. Limitations in the collective agreements may limit employer operational and human resource flexibility.
Project Allocation Risk	Inability or accidental omission to transfer risk to a viable third party may result in unfavourable exposure to the builder.

Personnel Risks: Injury to Staff or Third Parties

Impact 3

Health and Safety Risk	Failure to adequately promote and protect employees' and contractors' health and safety may result in injury or death and/ or future injury or death to personnel on the construction site.
Site Security and Safety Risk	Lack of site security and safety procedures at the construction site (toxic material handling, site visits, and uncontrolled work environments in remote locations) can cause unexpected injuries to employees, contractors and third parties.
Third Party Bodily Injury Risk	Inability to adequately anticipate, prevent, and mitigate against third party injury (other than contractors) may result in unacceptable obligations (trespassers, neighbours, etc).

Products/ Services Risks: Property Damage of Financial Loss Arising From Products or Services

Impact 3

Products/ Service Failure Risk	Faulty or non-performing products, materials or services expose the builder to customer complaints, warranty claims, field repairs, returns, product liability claims, litigation and loss of revenues, market share and reputation.

Compliance Risks: Failure to Comply – Legislation, Systems, Protocols	Impact 2
Legal and Regulatory Risk	Failure to comply with legal, statutory or environmental regulations may result in fines and penalties, delays in project, create unsafe project work conditions or negatively impact the builder's reputation

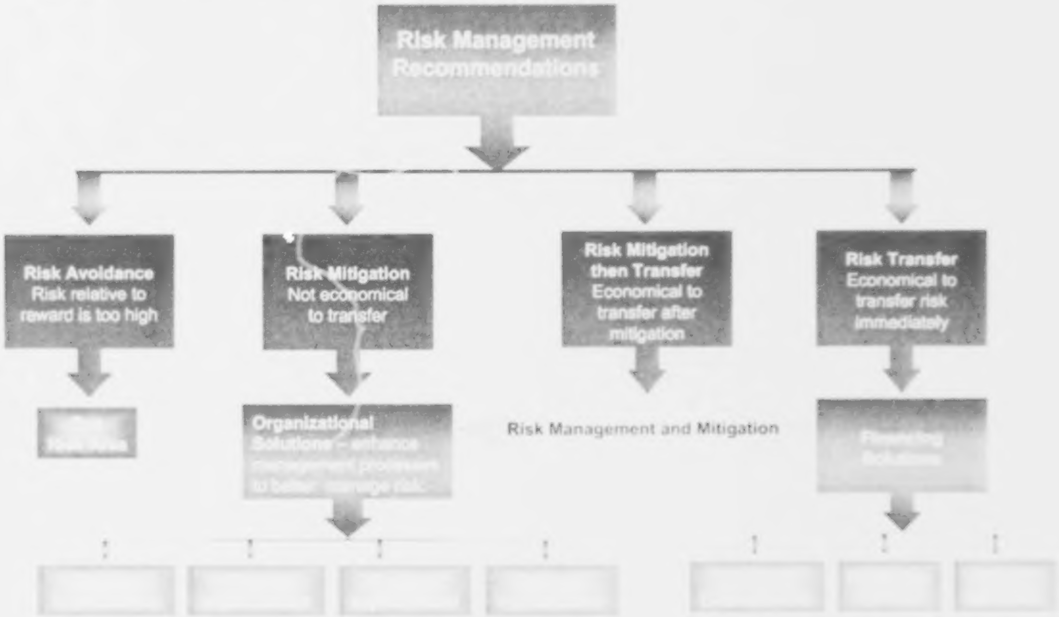
Environmental Risks: Damage to the Environment Arising from Activities, Occupation or Developments	Impact 2
Change in Ground Conditions Risk	Unforeseen ground conditions may result in estimation risks and/ or delays in the pre/ post construction operations.
Pollution Risk	Accidental release of dangerous substances and/ or contaminants caused inadvertently in typical activities (e.g. Bulk fuel storage leakage) can cause environmental damage (e.g. Soil dispersion, sediment movement) and may result in significant financial responsibility.

It is important that builders are aware of the risks of their operations, so that they can make informed decisions as to which risks to transfer either via contract, sub-contracting or through purchase of insurance, and which to retain and manage.

Risk Management Recommendations

In developing recommendations for risks, all options should be considered. Figure 1.5 outlines the decision-making process in assessing risk management solutions.

Figure 1.5: Risk Management decision-making process


Risk Management Recommendations
Risk Avoidance
Risk relative to reward is too high
Risk Mitigation
Not economical to transfer
Risk Mitigation then Transfer
Economical to transfer after mitigation
Risk Transfer
Economical to transfer risk immediately
Organizational Solutions – enhance management processes to better manage risk.
Risk Management and Mitigation
Financing Solutions

Compliance Risks: Failure to Comply – Legislation, Systems, Protocols	Impact 2
Legal and Regulatory Risk	Failure to comply with legal, statutory or environmental regulations may result in fines and penalties, delays in project, create unsafe project work conditions or negatively impact the builder's reputation

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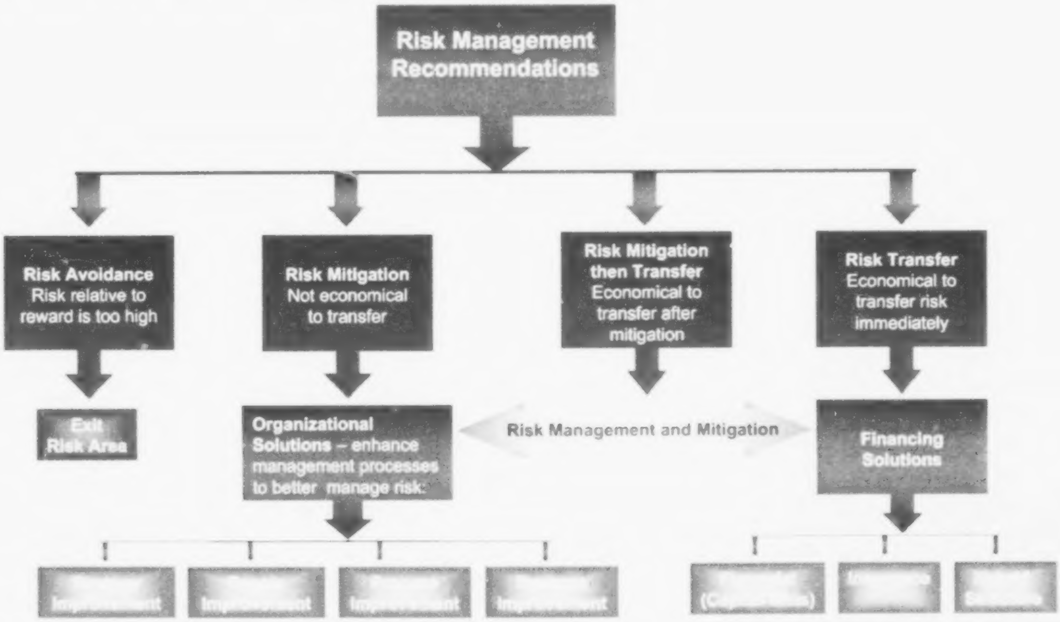
Risk Management Recommendations
Risk Avoidance Risk relative to reward is too high
Risk Mitigation Not economical to transfer
Risk Mitigation then Transfer Economical to transfer after mitigation
Risk Transfer Economical to transfer risk immediately
Exit Risk Area
Organizational Solutions – enhance management processes to better manage risk:
Risk Management and Mitigation
Financing Solutions
Improvement
Improvement
Improvement
Improvement

Recommendations included in this Section consider risk mitigation strategies and insurance products for the Residential Construction Industry. Solutions have been validated with Residential Construction Industry risk specialists and risk control specialists within Marsh.

The summary descriptions and risk management recommendations are culminated in a suitable format for communicating solutions to builders. Each of the key risks are detailed in this section as follows:

- Summary Description
  - Risk Categories
  - Average Impact of Risk
  - Definition of Risk
  - Causes
  - Recommendations and Mitigation Strategies
  - Insurance Solutions

- Risk Specific Case Studies

Please refer to Appendix C for a glossary of terms that will assist you with insurance terminology throughout the remainder of this report.

Business Interruption Risk

Summary Description

Risk Category: General Management	Average Impact	3

Definition of Risk

Failure to effectively plan for and recover from interruptions of operations may impair the builder's ability to meet deadlines and complete a project.

Causes

- Damage to the construction site
- Worker and site safety
- Government Acts
- Acts of God
- Union strike and work rules
- Unforeseen site conditions, including environmental conditions
- Occurrence of a natural disaster
- Unavailability of raw materials, information technologies, skilled labour, facilities, utilities or other resources
- Delayed deliveries
- Political climate and interference, community activism
- Site access
- Late or unsuitable owner-furnished material and equipment
- Withdrawal of funding/ unavailability of funds

Recommendations and Mitigation Strategies

Identify and measure risk exposures

Contingency Planning

No key supplier dependency

Policies and Procedures

Rebuild, Repair or Relocation capabilities

Phase 1 environmental assessments

Physical security

Insurance Solutions

All Risks Property Insurance endorsed with Business Interruption Coverage

- Business Interruption forms to include Extra Expense and Professional Fees

All Perils Builders Risk Insurance endorsed with Builders Risk Soft Costs Coverage

- Limit of coverage should equal the total of hard costs (physical loss) and soft costs (increased labour costs, construction delay, etc.) for adequate coverage

Case Study

Key Risk	Business Interruption Risk
Description of Event	Increased Costs due to Fire Physical Damage
Insurance Coverage	Builders Risk Soft Costs Coverage

Background

Fire damaged three nearly completed homes at the builder's site. In addition to the physical damage caused by the fire, the builder incurred considerable damage due to soft costs – expenses associated with the construction project, but not part of the "brick & mortar" structure.

Due to the loss, interior work could only be done in half-day segments. In the damaged areas of the homes, no work could be done until the damage was cleaned and corrected. Even after the work was repaired, interior work could not be completed at full pace because the delay in completion caused a shortage in labour as the workers were scheduled to be at other projects.

Damages

Physical Damage by Fire - $60,000

Soft Cost Damages - $40,000

Total - $100,000

The soft costs in this case were caused by hiring additional labour; compensating existing labour for full days when only half days were done; assigning a site supervisor for an extended period; extended use of site office facilities; and delay in construction to find alternate labour when the original labour contract expired.

Insurance Coverage

All Perils Builders Risk policies do not cover Soft Costs unless a special endorsement has been arranged. In this case, the builder had no coverage and incurred a loss of $40,000.

Lessons Learned

Insurance Coverage

The builder learned that it had not procured proper insurance coverage for its exposures. This may have been the fault of its broker, or it may have been its own unwillingness to pay the additional premium. The builder learned from this loss that Soft Costs coverage is available and should be purchased for every project.

Extent of Non-Physical Damages

The builder was surprised that physical damages of $60,000 could create soft costs of $40,000. The builder learned that soft costs can add up quickly depending upon circumstances and careful consideration must be given at the time of determining a limit of coverage.

Determining Limits

It can be difficult to determine a limit for soft costs. At the very minimum, whatever portion of the construction project pertains to soft costs should be included in the limit. In addition, builders need to envision the challenges presented at the time of a loss, considering the "worst-case scenario", to determine the most accurate limit.

Change in Ground Conditions Risk

Summary Description

Risk Category: Environmental	**Average Impact**	2

Definition of Risk

Unforeseen ground conditions may result in estimation risks and/ or delays in the pre/ post construction operations.

Causes

- Sub-optimal designs approved without account for ground conditions
- Sub-optimal solutions implemented due to lack of research
- Lack of appropriate tools to mitigate adverse ground conditions
- Lack of relocation plans to mitigate conditions not suitable for building

Recommendations and Mitigation Strategies

Undertake assessment of sources of site information

Conduct detailed field investigations by drilling and analyzing samples

Policies and procedures for proper analysis and contingency planning

Ensure a geotechnical study is conducted by a reputable and qualified engineering firm

The geotechnical engineer must accept full liability for its work, stipulated in the contract

Evidence of insurance must be provided by the geotechnical firm in the form of a Certificate of Insurance

Insurance Solutions

There is no insurance that will directly indemnify the builder. By contracting a geotechnical study to a qualified engineering firm, if there is a change in ground conditions, the builder will at least be in a position to recover its loss from the responsible geotechnical engineering firm.

Case Study

Key Risk	Change in Ground Conditions Risk
Description of Event	Inaccurate Topographic and Soils Data
Insurance Coverage	No First Party Coverage Available

Background

A builder was provided with inaccurate topographic and soils data by its engineer when planning the cost schedule for a housing project. It incurred unexpected costs of $800,000 for additional work. There was no access road which was shown in the specifications provided by the engineer, creating increased costs of moving equipment and materials, plus the construction of an access road.

In costing the project, the builder relied on the accuracy of the topographic and soils data provided by the engineer. The builder contended that costs exceeded his estimated construction plan due to the inaccurate survey and soils data, which also created additional interest and expenses to refinance the project.

The engineer maintained that the topographical maps provided to the builder were accurate and that the extra work performed by the builder was reasonably expected due to soil shrinkage during construction. It claimed the builder's work estimate was defective and did not properly account for shrinkage and compaction of the existing ground during construction.

Damages

The engineer was made to pay the amount of $887,057, prejudgment interest of $173,809 and other costs of $13,666, for a final judgment of $1,074,532.

Insurance Coverage

There is no insurance coverage to protect the builder in this case. It has to rely completely upon its recovery in the court system. Certificates of Insurance help to indicate if the engineer has the financial resources to compensate according to the judgment.

Lessons Learned

Documentation and Experience

The builder was successful in this case due to its ability to produce three experienced contractors who testified that the anticipated costs accurately reflected the information provided by the engineer. Experts testified that the cost overruns resulted from inaccurate topographical information. In the absence of this testimony, the builder could have incurred over $1,000,000 in unexpected costs of construction.

Approach Information with Caution

The builder learned that as much as is practical, it should verify topographic and soil information through site visits by its construction managers and supervisors.

Construction Accidents Risk

Summary Description

Risk Category: Asset Management	**Average Impact**	3

Definition of Risk

Unintentional damage on or to the construction site and/ or key equipment resulting in delays, or preventing the completion of a project.

Causes

- Valuable equipment stored on premises
- Specialized vehicles target of vandalism/ arson
- Damage to vehicles during loading or unloading, collisions, etc.
- Inadequate training and ongoing communication
- Private passenger vehicle accidents
- Heavy machinery and industrial equipment accidents (boom trucks, tractors, cement mixing trucks, dump trucks)
- Explosions, collapse, underground construction
- Inadequate equipment of vehicles used during construction

Recommendations and Mitigation Strategies

Construction site should be monitored at night

Construction sites should have proper lighting at night

Vehicles should be designed with mirrors, alarms and signage where there is inhibited view

Obtain Certificates of Insurance from all subcontractors and security contractors

Appropriate training on use and hazards of construction equipment

Supervision of less experienced workers

Ensure proper equipment/ vehicles are used at all times

Insurance Solutions

All Perils Property Insurance

Crime Insurance

Automobile Insurance

Contractors Equipment Floater

Case Study

Key Risk	Construction Accidents Risk
Description of Event	Fire
Insurance Coverage	All Perils Builders Risk Coverage

Background

This builder had control of a site where the design called for I-beams to support the otherwise brick and wood frame townhouses. While welding I-beams too close to the framing of the structure, heat and flame from the welding activity ignited the wood framing and caused extensive damage to six townhouses.

Damages

Fire Damage to Six Townhouses - $470,000

Insurance Coverage

All Perils Builders Risk Coverage provided indemnity for the loss. The deductible was $10,000.

Lessons Learned

Hot Works Protocol

The builder learned that a series of precautions must be taken when conducting hot works at a building site. Work has to be performed at key distances, with heat and fire protection established to protect any flammable material in the work area. Communication and supervision of the work must be carried out by the builder, even if the welding is done by a subcontractor. A hot works permit should be required prior to engaging in such activities.

Hot Works Warranty

Most insurance policies now force the builder to follow a Hot Works Protocol as a condition of coverage. This makes such a protocol even more critical because failure to properly conduct hot works could lead to a significant loss that is not covered by insurance.

Review of Subcontractors and Subcontractors

Despite having insurance protection, this is the kind of loss a builder prefers to avoid. Even if the subcontractor is proven responsible, that is only a matter of subrogation. The builder is still liable to the homeowner.

To help prevent these types of losses, builders should demand that all contractors and subcontractors pass a rigorous qualification process. Builders should choose subcontractors very carefully, including an extensive review of references and obtaining evidence that they carry appropriate insurance (certificate of insurance).

Contractor Performance Risk

Summary Description

Risk Category: General Management	Average Impact	3

Definition of Risk

Inadequate contractor (subcontractors of any tier) availability or performance, and/ or shortage of craft labour, may result in completion delays, sub-standard materials, unacceptable variations from plans and specs as well as cost overruns.

Causes

- Lack of information system that effectively tracks contractual commitments outstanding
- Financial implications of decisions to enter into additional contracts is not appropriately monitored by decision makers
- Seasonality of business creates high demand for trades
- Key supplier dependency
- Inadequate transfer of risk in supplier contracts

Recommendations and Mitigation Strategies

Develop system to track contractual commitments

Create planning process with contingency plans for shortfall of trades

Develop relationships with many key suppliers

Review contracts for proper transfer of responsibility wording

Insurance Solutions

Contract Surety Bonds

- Bid bonds
- Performance Bonds
- Labour and Material Bonds

These forms of protection are not insurance, but are provided by insurance companies since they have both the knowledge of risk and the financial resources to provide the guarantees.

Case Study

Key Risk	Contractor Performance Risk
Description of Event	Drywall Contractor Failed to Complete Contract
Insurance Coverage	No Insurance – Surety Bonds designed for this Exposure

Background

A builder contracted with a drywall company to complete the interior construction of a group of high-end, custom-designed homes. The builder paid the contractor an advance of $10,000 on a $25,000 job. This was at the drywall contractor's demand as it said it had many job requests and needed assurance that the builder was serious. The drywall contractor was on site for one day, barely completing its preparation work. The contractor never returned, forcing the builder to hire an alternate contractor and lose its $10,000 deposit.

Damages

Loss of Deposit - $10,000

The builder also incurred consequential losses resulting from the additional time required to complete the work. The value of the consequential losses was never determined.

Insurance Coverage

There is no insurance coverage to protect against this situation. However, had the builder demanded a performance bond from the contractor, it would have had assurance that the work would be complete. The bond is a guarantee to the builder that the contractor intends to, and is capable of completing the contract. If the contractor fails to do so, the bonding company would be responsible for the cost of arranging the completion of the work.

Lessons Learned

Surety Bonds

The builder learned the value of surety bonds.

In addition to the value of the protection offered by the surety, the builder knows that a contractor that has a bonding facility has been pre-qualified with respect to its financial capability and its moral capability to complete the work.

Cost Overrun Risk

Summary Description

Risk Category: General Management	**Average Impact**	3

Definition of Risk

Costs incurred outside of an acceptable range for a project (outside of contingency) may adversely affect return on investment.

Causes

- Unforeseen costs associated with business interruption
- Poor planning and budgeting procedures
- Unforeseen site conditions
- Improper pricing information
- Outdated materials pricing
- Miscommunication of customer wants/ needs

Recommendations and Mitigation Strategies

Identify key project risks

Develop contingency planning procedures to mitigate key risks

Standardize pricing and budgeting procedures

Maintain proper personnel to analyze pricing on projects

Thorough understanding of project requirements

Regular review of actual versus budget costs during project

Insurance Solutions

Costs due to insured Physical Damage

- Business Interruption Extra Expense Form
- Builders Risk Soft Costs Coverage

Costs not caused by insured Physical Damage

- Excusable Delay – Force Majeure Insurance Policy
- Non-Excusable Delay – Delayed Completion/ Liquidated Damages
- Regardless of Excusable – Combined Delayed Completion/ Force Majeure

Costs due to Builder/ Developer Errors without Physical Damage

- Professional Liability Policy (in limited cases)

Case Study

Key Risk	Cost Overrun Risk
Description of Event	Subcontractor Seek Damages for Extra Work on Construction Contract
Insurance Coverage	No Traditional Insurance Product will Respond

Background

Breach of contract by the builder resulted in delays and disruptions to the project, forcing the subcontractors to perform additional work without additional compensation. The delays are alleged to be the result of the builder's failure to provide adequate design information for customized interior portions of condominium units. Further delays were incurred while waiting for specifications, change orders and re-doing portions of the work.

Maintaining that all work was completed in accordance with the contract documents, the subcontractors claimed that they incurred additional field, supervision, facilities, equipment, head office and insurance expenses as well as an overall loss of productivity due to higher labour costs and extended time for subcontractors.

The subcontractors also maintain that additional masonry work, floor drains in mechanical rooms, upgraded window framing, upgraded plaster, additional caulking, upgraded carpeting and additional choices for colours of bathroom fixtures was ordered by the builder and performed by the subcontractors.

Damages

The subcontractors' expert construction claims consultant determined that the delays and disruptions resulted in a 4.5 month delay, which translated to expenses of $383,000 for the subcontractors. Total cost overruns were finally determined to be $557,000.

Insurance Coverage

There is no traditional insurance coverage to indemnify the builder in this case.

Lessons Learned

Project Planning

The problems arising on this project are all the result of poor planning on the part of the builder. It envisioned a condominium project where each unit would be individually customized to the buyer's own choices, based upon a wide array of options. This created challenges in the construction work that were not foreseen by the builder. It learned to rely on more experienced consultants and construction managers for its next project.

Communication and Contract Documents

The concept of this project was not effectively communicated to the subcontractors. It is apparent that the contract documents did not describe the nature of the work adequately or provide a method by which the customizations could be completed in an organized manner that would also clearly define the liability of the subcontractors.

Construction Management

The job suffered from a lack of effective construction and project management. The builder learned that it must use very experienced and proven managers with particular experience for a specialized project. References have to be diligently verified.

Credit (Default) Risk

Summary Description

Risk Category: Financial	**Average Impact**	3

Definition of Risk

Inability to adequately assess the creditworthiness of counterparties, suppliers or other key parties may result in default exposure or lack of performance.

Causes

- Lack of systems to perform background checks on key suppliers, clients, and professionals
- Inadequate insurance coverage

Recommendations and Mitigation Strategies

Require performance guarantee bonds

Obtain indemnity agreements from counterparties in contractual agreements

Perform background checks on all parties to contractual commitments

Obtain references from counterparties for past completed work (for quality and performance)

Insurance Solutions

Contractor/ Subcontractor Default Insurance Policy

- Key benefit is protection for the builder if contractors, subcontractors or suppliers default
- Also provides background financial analysis into the creditworthiness of the subcontractor or supplier

Case Study

Key Risk	Credit (Default) Risk
Description of Event	Bad Faith Breach of Contract Re: Surety Bonds
Insurance Coverage	No Traditional Coverage

Background

The builder in this case was acting as general contractor for the construction of homes as part of a larger development for the site owner. As required by the contract, the builder procured payment and performance bonds from an agent of the Surety who had unlimited power of attorney, the Surety's seal and various forms. The bonds were delivered to the builder who in turn paid the premium and delivered the bonds to the owner's consultant.

Just before the builder was to sign the final contract documents, the Surety advised both the builder and the owner that the bonds were "unauthorized" and were therefore "void" and "revoked". Due to the revocation of the bonds, the owner awarded the contract to a different builder.

The actions of the Surety ultimately caused the project owner to cancel its contract with the builder. Revoking the bonds was a breach of the Surety contract and constituted bad faith.

Damages

Lost Gross Profit on the Project - $897,000.

Insurance Coverage

There is no traditional insurance coverage to indemnify the builder for its lost opportunity.

Lessons Learned

Choosing the Surety

In most construction projects, the surety bond is critical to the award and performance of the contract. A builder that fails to provide required surety will not be permitted to do its work. It is therefore very important to choose a Surety very carefully. The builder must ensure the Surety is a reputable insurer or guarantee company that commonly issues contract bonds. This can be verified through an independent insurance broker. Builders should obtain bonds from an independent broker, not agents, as the broker represents the builder and the agent merely represents the Surety.

Intangible Loss

The builder in this case was successful in its recovery against the Surety. However, the recovery only indemnified the builder for its quantifiable business loss. This situation damaged its reputation. The impression it gave the owner and the consultant is that it is not a financially viable enterprise. As a result, if it bids on work tendered by that owner in the future, the owner may refuse to award the contract.

Employee/ Third Party Fraud Risk

Summary Description

Risk Category: Asset Management	**Average Impact**	3

Definition of Risk

Fraudulent activities perpetrated by employees, customers, suppliers, agents, brokers or third-parties against the builder for personal gain (e.g. theft of physical, financial or information assets) expose the builder to financial loss.

Causes

- Lack of systems to track contractual arrangements
- No background checks on parties to contracts
- Lack of adequate security on construction site

Third parties on site include:

- Site inspectors (construction managers, architects, zoning and public safety officials, building code inspectors)
- Delivery personnel
- Salespeople
- Contractors
- Trespassers

Recommendations and Mitigation Strategies

Keep all cash and valuable financial papers in a resistant safety box

Cheques should be marked "for deposit only" immediately

Different people to carry out accounting functions

Internal audits conducted

Reference checks performed on all new hires/ contract workers

Construction site should be monitored at night

Construction sites should have proper lighting at night

Construction sites should be furnished with fencing and "No Trespassing" signs

Alarm systems should be installed at permanent offices

Insurance Solutions

Comprehensive Dishonesty, Disappearance and Destruction Insurance Policy (Crime)

- Insuring Agreement I – protects against employee theft of money, securities and other property
- Insuring Agreement II – protects against theft of money and securities from inside the premises
- Insuring Agreement III – protects against theft of money and securities from outside the premises
- Insuring Agreement IV – protects against counterfeit currency and money orders
- Insuring Agreement V – protects against forgery of cheque written by the insured
- Several endorsements add electronic theft, credit card forgery, forgery of received cheques and extortion.

All Perils Property Insurance Policy

- Cover theft of other property (not money or securities) by non-employees

Case Study

Key Risk	Employee/ Third Party Fraud Risk
Description of Event	Theft of Building Materials
Insurance Coverage	Employee Dishonesty Coverage (Fidelity Bond)

Background

After noticing cost overruns on a number of projects, a builder conducted an audit of its operational and financial departments. The cause of the cost overruns was determined to be excess costs of construction material due to a shortage of supply at the job. Several materials contributed to the problem including drywall, framing, bricks, cement, fuel and fastening supplies and equipment. A careful investigation led to the discovery that a small group of employees were stealing materials from various sites. The materials were either used in private work done for their own profit or sold to small contractors.

Damages

Theft of Building Materials and Equipment - $65,000

The thefts occurred over the course of an eighteen month period, from June to November of the following year.

Insurance Coverage

Employee Dishonesty Coverage

Although this Insured had coverage, it was only a limit of $10,000 packaged into its policy as a "product enhancement". There was no specific crime policy providing adequate limits of coverage. As two distinct occurrences were uncovered, the Insured was able to collect $20,000 from the insurer less its $1,000 deductible on two occasions. The net result is $47,000 ($45,000 loss plus $2,000 deductible) that the builder had to absorb. In addition, as no "Proof of Loss" coverage was provided, the builder also absorbed the cost of the audit and investigation.

Lessons Learned

Careful Choice of Limits

When reviewing and approving its limit of coverage for employee dishonesty, the builder did not consider that the loss could occur over a long period of time. The builder was confident that no employee could steal anything greater than $10,000. However, it did not consider a few employees stealing small amounts of property over a long period of time totalling $65,000. The builder began to purchase $100,000 of employee dishonesty coverage, including Proof of Loss Expense, following that experience.

Estimation Risk

Summary Description

Risk Category: General Management	**Average Impact**	3

Definition of Risk

Inaccurate estimates with respect to project finance, timeliness, government legislation and surveying resulting in insufficient capital or project delays.

Causes

- Unforeseen costs associated with business interruption
- Poor planning and budgeting procedures
- Failure to account for worst-case scenarios and develop contingency plans
- Unforeseen site conditions
- Incomplete project information
- Misinterpretation of contracts
- Misunderstanding due to misrepresentation of site conditions

Recommendations and Mitigation Strategies

Identify key project risks

Ensure contractual obligations build in allowance for possible delays

Develop contingency planning procedures to mitigate key risks

Insurance Solutions

Builders own Error re: Estimating

There is no commercially available coverage for this risk. The builder must control is exposure through careful internal budgeting, planning and balances.

Error by Business Partners

- There is no direct first party insurance.
- Builder must ensure partners are adequately insured, evidenced by Certificates of Insurance
- Subcontractor and supplier contractors must carefully define the liability of the subcontractor or supplier
- Builder can recover from liable business partners

Case Study

Key Risk	**Estimation Risk**
Description of Event	Differing Site Conditions Cause Delay
Insurance Coverage	No Traditional Insurance Available

Background

A builder was awarded a contract to clear a wooded site, cut and fill, build roads, berms and retaining walls in preparation for the servicing of the lots and construction of houses. The contract documents included boring logs which represented the underlying soil as graded silt/ sand. Based on contract document indications, the builder determined that on-site cut earth quantities could be used for the fill areas, conventional earthmoving equipment could be employed and the equipment could access the site from an adjacent service road. The builder made its estimate and submitted its bid based upon this information. Four months after the award, the owner provided the builder with a map showing that 80 per cent of the site was federally designated wetlands areas.

As a result, the builder was unable to use heavy earthwork equipment and could not remove as many trees as planned. Related to and compounding the wetlands problem was the existence of saturated peat marsh, super-saturated clays, subsurface water and other unsuitable soil, none of which was shown on the soil boring logs. Many other functions needed to be added to the work schedule to accommodate the wetland issue. The project completion was delayed by 97 days, for which the owner agreed. The builder submitted a request for equitable adjustment citing the differing site conditions, constructive changes, directed changes, disruption, suspensions and delays. The builder sought compensation for the increased direct costs of performance and delay compensation for extended site and home office overhead and equipment stand-by expenses.

The owner denied the compensation and the matter went to court. By the time the trial was finished, in the words of the court, the owner "wisely chose to stipulate to the differing site condition." The court found joint liability. The court did not agree that all of the builder's losses were chargeable against the owner. The owner contended the builder's estimate was flawed. Regarding delay damages, the court rejected the builder's attempt to use an early completion schedule that was never submitted to the owner. The court instead awarded stand-by equipment costs from the submitted schedules planned demobilization date to the actual demobilization. The court also awarded extended duration overheads but only for the 97 days from the submitted schedules planned completion to the actual completion date. The court's modifications to the builder's damages quantification still resulted in a large recovery for the builder.

Damages

$1,400,000 of which $800,000 was recovered from the owner. Net loss was therefore $600,000.

Insurance Coverage

There is no insurance coverage to compensate the builder in this case.

Lessons Learned

Thoroughly Research all Sites

The builder should not simply rely on information provided from third parties, particularly when the third party is not a professional entity and assumes no liability for its information. The builder in this case should have done a proper site investigation from the very beginning in order to have a thorough understanding of the site.

Estimation Protocol

It should be standard procedure for the estimator to search available databases from government and private sources to learn the true status of potential construction site. Learning that the site in this case was a federally designated wetland would have been fairly easy. Once known, not only could the builder calculate a proper estimate, it could advise the owner of the necessary schedule given the challenges of such a site.

Comment

Although there was liability on the part of the owner, the $600,000 loss suffered by the builder could have been avoided if it has simply carried out more thorough research into the site. There is no insurance to cover this loss and that makes estimating a very risky necessity that requires due diligence.

Health and Safety Risk

Summary Description

Risk Category: Personnel	**Average Impact**	3

Definition of Risk

Failure to adequately promote and protect employees' and contractors' health and safety may result in injury or death and/ or future injury or death to personnel.

Causes

Injury or death resulting from:

- Falls from high heights
- Being hit by falling objects
- Improper use of equipment
- Exposure to hazardous chemicals
- Exposure to loud noises for long periods of time
- Inadequate training and ongoing communication
- Vehicle accidents
- Heavy machinery and industrial equipment accidents (boom trucks, tractors, cement mixing trucks, dump trucks)
- Accidents from loading and unloading
- Slips and falls
- Live wires causing electrocution
- Explosions, collapse, underground construction
- Objects that are blown or dropped
- Open holes, trenches, wells

Recommendations and Mitigation Strategies

Safety training for all non-unionized workers

New workers assigned to more experienced workers for training

OHSA rules and regulations training

Proper maintenance of construction site will prevent accidents

Personal protection equipment should be mandated

Breathing protection should be mandated where workers are exposed to toxins

Medical examinations should be mandated for all potential workers

Encourage workers to be certified in first aid

Contractors should supply detail on their injury rates, loss experience, workers' compensation, experience modifier or other data that indicates their accident history over the past 3 – 5 years

References should be requested from projects similar to the project currently accepting bids

Contractors to provide a copy of their health and safety program

Insurance Solutions

Government Mandated Workers Compensation

All employers have to buy insurance protection from the government monopoly. Under these circumstances, the focus is risk control and loss prevention to ensure the best possible premiums and credits.

Employees Exempt from Workers Compensation

Employers Liability Coverage/ Contractors to provide a certificate of insurance and verify coverage is valid for duration of project.

Case Study

Key Risk	Health and Safety Risk
Description of Event	Lack of Safety Procedures
Insurance Coverage	Employers Liability and Workers Compensation

Background

A builder was found liable for white finger injuries of 6 employees which was caused by exposure to excessive vibration. The court held the builder should have been aware of the potential risk and have taken measures to minimize the risk. Damages were awarded for pain and suffering and for the disadvantage which it gave to the claimants when looking for new work in the labour market.

Damages

$384,823

Insurance Coverage

Employers Liability and Workers Compensation

Lessons Learned

Safety Procedures

Loss prevention and jobsite safety is a very specialized discipline requiring experience and training. Although acting with common sense is a crucial part of managing a safe jobsite, no builder should take on safety without the assistance of a professional advisor. There are too many potential accidents that can occur at a jobsite for the builder to think of them all. A professional advisor will audit jobsites and procedures and develop cost-effective, meaningful safety programs that truly reduce accidents and mitigate those that do occur.

A second advantage to hiring an independent safety advisor is the transfer of liability. Had the builder in this case engaged an independent firm, it could have recovered the loss from the safety advisor as it would have been the safety advisor's job to know of the potential dangers. The transfer of liability must be included in a contractual agreement and the advisor should provide evidence of professional liability insurance as a financial backstop to the agreement.

Human Resources Risk

Summary Description

Risk Category: General Management	Average Impact	3

Definition of Risk

Inability to attract, develop and retain competent people may inhibit the builder's ability to execute, manage and monitor key business activities.

Causes

- Location of projects
- Poor employment practices (sexual harassment, discrimination, wrongful termination, etc.)
- Reputation of company
- Health and safety practices
- General economic environment (unemployment rates)

Labour supply inadequate:

- Trades (carpentry, demolition, electrical, excavation, mason, paving, plumbing, scaffolding, roofing contractors)
- Architects
- Construction managers
- Foremen
- Superintendents
- Office personnel

Recommendations and Mitigation Strategies

Competitive benefits

Competitive compensation packages

Health and Safety training

Planning procedures accounting for location and desirability of project

Insurance Solutions

Benefits for Employees

Medical and Rehabilitation Health Insurance

Dental Insurance

Prescription Drug and Eyewear Insurance

Life Insurance

Accident & Sickness Insurance

Case Study

Key Risk	Human Resources Risk
Description of Event	Gas Line Explosion at Development Site
Insurance Coverage	Comprehensive General Liability (CGL) All Perils Builders Risk Coverage

Background

At its site, a builder was preparing to build homes in an existing neighbourhood. The gas company surveyed the site and "flagged" off the buried natural gas service lines. During the course of construction, the builder struck a gas line while digging a trench for water services. An explosion ensued damaging the work, neighbouring premises and injuring three pedestrians.

Damages

Bodily Injury to Third Parties - $1,500,000 (damage claims)

Property Damage to Third Parties - $200,000

Damage to the Work - $500,000 (4 townhouses @ $125,000 each at time of loss)

Total Damages - $2,200,000

In addition to damages, it estimated that loss settlement expenses and defence costs will exceed $300,000 for this loss. The builder denies liability, pointing out that the gas company gave the "okay" to dig in that particular spot. The gas company has no recollection of such approval.

Insurance Coverage

The CGL policy will defend the builder from the legal actions resulting from this loss. In addition, if any judgments are awarded against the builder, the CGL policy will indemnify the builder for the amount of the judgment. The builders risk policy will cover the loss to the work. The builder will absorb a total of $50,000 in deductibles. For actual loss, insurance is providing a good source of protection. However, damage to the builder's reputation is also at stake. Other parties in the loss have made very detrimental public statements. Its ability to secure work permits with the City and surrounding municipalities is severely at stake. Without permits, the builder obviously cannot work. It faces financial ruin.

Lessons Learned

Site Preparation

In this case, the builder has benefited from the actions of its Project Manager and Site Superintendent: Before beginning work, they took several colour photographs of the site and sketched out a site plan. They have a very good record of the condition of the site prior to construction and prior to the loss. In addition, following the gas company's survey, they took pictures of the site "flagged" to show where the gas lines were. In the area where the loss was caused, there were no flags. This is potentially exculpatory evidence that supports the builder's claim that it is not liable.

The lesson learned by this builder, immediately put into to action, is to always make a record of the site before beginning work. In addition, where relying on information provided by other companies, get an accurate record of their statements, and surveys before beginning work.

Human Resources

The moral of this story: This particular builder has on staff highly qualified, professional and experienced managers and supervisors. **This experience and intelligence is what will ultimately save the company from ruin.** The builder always made an effort to hire the best and compensate his employees proportionally. This was not a formalized process, but a general philosophy of the owner.

Following the loss, the owner decided to make it a formalized process in order to continue to seek and find only the best personnel for his business. It is also being extended to the entire labour force, not just salaried staff.

Interest Rate Risk

Summary Description

Risk Category: Financial | **Average Impact** 3

Definition of Risk

Inability to effectively manage the cost of capital may impair the financial viability of the projects or the builder.

Causes

- General economic environment (economic growth, inflation, unemployment)
- Debt obligation payment history
- National and global savings and investment trends
- Project delays cause loan extensions
- Customer refuses to make payment causing loan extensions

Recommendations and Mitigation Strategies

Central monitoring of interest rates for all builders

Credit checks on all customers to verify ability to pay

Group loans – pool borrowing to increase negotiating leverage

Insurance Solutions

Interest Rate Expense and Loss due to Delayed Completion

By an insured peril – Builders Risk Soft Cost Coverage

Non-insured peril – Delayed Completion/ Force Majeure/ Combined Policies

Case Study

Key Risk	Interest Rate Risk
Description of Event	Delay Increases Construction Loan Interest Costs
Insurance Coverage	Delayed Completion Coverage

Background

The builder filed a breach of contract action against the contracted engineer alleging that it failed to meet a contractual deadline for completion of engineering services, resulting in additional interest payments for extensive construction loans.

The builder argued that a promise to complete the engineering services within 90 days was contained in a letter from the engineer. The builder claimed the defendant was responsible for a six-month delay in completion of the engineering work, pushing back the completion date of the project.

The engineer in turn blames the delay on the architect who did not complete the architectural drawings in a timely manner and other delays beyond the engineer's control. The architect denied its liability, siding with the builder and alleging untimely completion of engineering work.

Damages

Additional Interest on Outstanding Loans - $1,182,931

Insurance Coverage

Delayed Completion Coverage (Not purchased in this case)

Lessons Learned

Documentation

In the absence of the evidence produced in this case, the builder would have an additional $1,182,931 in unexpected interest expenses. Its ability to properly support its case led to its recovery of the additional expenses. The architect testified that the engineering drawings were not completed in time to meet the required deadlines. The builder further introduced evidence to establish that the engineer was aware of the necessity for rapid completion of the engineering services, which if not accomplished in a timely manner, would jeopardize the completion of the project. The builder was able to precisely quantify its additional interest expense claim.

Quality record keeping and accounting allowed the builder to recover this loss.

Reducing Court Delays

Although the loss was recovered, it took a very long time for this case to work its way through the courts. It is not uncommon for some cases to take 5 – 10 years to settle. In the meantime, the builder is out-of-pocket for considerable sums of money, including its cost of legal action.

Had the builder purchased a Delayed Completion Policy, it would have received its loss from the insurer within months of filing the claim. The insurer would subrogate against the engineer for recovery, saving the builder the time and expense of a lawsuit. The cost of the policy and the deductible would be far less than the cost of recovery through the courts.

Labour/ Union Relations Risk

Summary Description

Risk Category: General Management	Average Impact	3

Definition of Risk

Strikes and/ or other collective actions may disrupt operations and achievement of objectives. Limitations in the collective agreements may limit employer operational and human resource flexibility.

Causes

- Contracting unionized trades
- Fallout from unionized alternative suppliers when hiring non-unionized labour

Recommendations and Mitigation Strategies

Exploration of alternatives to single-source unionized trades

Lobbying union leaders during collective agreements renegotiation

Formalized labour relations committee

Continuous communication with unions with respect to long-term strategy of the company

Insurance Solutions

No Insurance Available

- Cessation of work due to labour disruptions or strikes is excluded from Builders Risk Policies
- Soft Costs Coverage will not respond because there is no insured physical damage causing the cessation
- If cessation due to a subcontractor, standard construction documents consider it an excusable delay
- There is essentially no insurance, contractual or legal recourse for losses due to a strike

Case Study

Key Risk	Labour/ Union Relations Risk
Description of Event	Refusal to Perform Work Using Non-Union Employees
Insurance Coverage	No Traditional Insurance Coverage Available

Background

The builder retained a flooring subcontractor to install the flooring at a housing development. The subcontractor advised the builder that it used non-union employees. When arriving at the job site to begin work, the subcontractor and builder were notified that the work could not be done because the employees were non-union and this was a union-project.

In order for the work to be completed, the subcontractor had to charge more money as the unionized labour was more expensive than his non-union work force. The builder contended that it was not aware the flooring workers were non-union and the contract should be performed at the original price.

The subcontractor refused to do the work at the original price. In the face of construction delays in finding a new subcontractor, the builder had to agree to the additional charges.

Damages

Additional Contract Costs - $11,565.

Insurance Coverage

There is no insurance coverage available for this loss.

Lessons Learned

Attention to Detail

Builders should be aware and state clearly in contracts where unionized labour is required to complete work. They should also ensure they ask each subcontractor if it complies with contractual requirements regarding unionized labour.

Legal and Regulatory Risk

Summary Description

Risk Category: Compliance	**Average Impact**	2

Definition of Risk

Failure to comply with legal, statutory or environmental and health regulations may result in fines and penalties, delays in project, create unsafe project work conditions or negatively impact the builder's reputation.

Causes

- Retroactive legislation could put the builder out of compliance
- Failure to monitor and comply with emerging regulations and reporting requirements
- Workers safety and environmental regulations
- Failure to comply with building codes (structural defects)

Recommendations and Mitigation Strategies

Formalized government relations committee to effectively lobby on issues affecting the residential Construction Industry

Formal monitoring of new laws, policies and regulations

Affect system for dissemination of pertinent information to the Residential Construction Industry

Insurance Solutions

No Insurance Available

- Delays due to failure to comply with legal requirements and fines and penalties are excluded from policies
- There is essentially no insurance, contractual or legal recourse for losses due to non-compliance with legal and regulatory requirements

Case Study

Key Risk	Legal and Regulatory Risk
Description of Event	Township Building Inspector Pays Damages to Builder
Insurance Coverage	No Insurance Coverage

Background

The builder built four residential rental buildings in a resort village. During the final phase of construction, serious building code infractions were found in all four structures. The tenants abandoned the buildings, and when the project went into receivership, the lender foreclosed on its mortgage and tied up the other assets of the guarantors.

The court found that the building code violations were so numerous that the building inspector could not have conducted proper inspections during construction. The court rejected the township's argument that the builders had partially contributed to their loss. Instead, the court found the village where the construction took place to be solely responsible for the builder's loss.

Damages

The builders recovered their loss of $11,200,000 from the Township.

Insurance Coverage

No insurance is available for any loss resulting directly from building code violations such fines, penalties and loss of rental income. However, had a violation of a building code ultimately resulted in an accident at the site or after completion, the resulting bodily injury or property damage would be covered by a Comprehensive General Liability policy.

Lessons Learned

Always Comply with the Codes

The court was lenient in this case. Despite the township building inspectors failing to discover code violations, the builder should never have committed the code violations in the first place. When entering a new market, builders should take the time to learn all of the local building codes and design projects that conform to the codes. Education is key to avoiding code violations that result in fines, penalties and lawsuits that can amount to significant damages, even causing the insolvency of the builder's organization.

Courts are Unpredictable

The builder was lucky in this case. The courts could have just as easily found an entirely different verdict, holding the builder partially or fully liable. A builder cannot rely on the courts after the fact to protect its business. It has to take a proactive approach to loss control, including code conformity. Had the violations not been discovered, it is possible that accidents could occur as a result of the violations, possibly causing property damage or bodily injury to the tenants. Under those circumstances, the losses would be even greater.

Natural Hazard Risk

Summary Description

Risk Category: Asset Management	**Average Impact**	3

Definition of Risk

Any act of nature (fire, water, wind, earthquake, temperature etc.) that may significantly impact the successful completion of the project.

Causes

Direct and Consequential Damage from:
- Fire
- Earthquake
- Flood
- Sewer Back-up
- Windstorm
- Electrical Storm
- Land subsidence
- Volcanic activity

Recommendations and Mitigation Strategies

Contingency planning

Environmental remediation plan for emergency situations

Proper estimations of Business Interruption figures resulting from natural hazards to obtain appropriate insurance limits

Insurance Solutions

All Risks Property Insurance Policy

Business Interruption Coverage

All Perils Builders Risk Insurance Policy

Delayed Start-up Coverage

Builders Risk Soft Costs Coverage

Case Study #1

Key Risk	Natural Hazard Risk
Description of Event	Windstorm Damage to Homes in Framing Stage
Insurance Coverage	All Perils Builders Risk Coverage Builders Risk Soft Costs Coverage

Background

A mid-sized builder in the 250 homes per year range suffered a significant loss at one of its sites in Quebec due to a strong windstorm. Twenty-four homes were damaged by a severe storm while at the framing stage of construction. The wind knocked over three houses. As the houses fell over, neighbouring houses were damaged in succession due to the weight and stress of the wind damaged homes.

Damages

24 homes re-framed at $25,000 each - $600,000

Clean-up costs and re-preparation of the site - $100,000

Delayed Start-up Costs - $ 5,000

Total Loss - $705,000

In this case, the delayed start-up costs consisted of increased cost of financing during the extended construction period and additional closing and re-financing costs.

Insurance Coverage

All Perils Builders Risk Coverage endorsed with Soft Costs coverage indemnified this Insured for the full value of the loss. A deductible of $25,000 was retained by the builder, along with a waiting period of 30 days for Soft Cost coverage.

Lessons Learned

The Power of Nature

The builder never realized the extent of damage wind can do to its project. This fact was considered in all future construction projects.

Loss Mitigation

There is no way to control the forces of nature. Therefore, measures must be taken to ensure that if a peril does occur as the result of a natural hazard, the damage it causes will be minimal. In the case of framing houses, construction is scheduled such that only two successive houses are left in the framing stage, with a gap of at least one house in between. Once the framed houses are bricked and closed, framing can begin on the "gapped" house. It meant a change in construction methods, but it has been a successful change.

Case Study #2

Key Risk	Natural Hazard Risk
Description of Event	Windstorm Damage to Homes in Framing Stage
Insurance Coverage	All Perils Builders Risk Coverage Builders Risk Soft Costs Coverage

Background

The same builder as noted in the above case study suffered another loss due to wind the very next season. In this case, wind blew over four town houses. The debris from the damage fell into a planned gap in construction, ceasing any further damage.

Damages

Four Homes in the Framing Stage @ $35,000 each - $140,000

Insurance Coverage

All Perils Builders Risk Coverage endorsed with Soft Costs coverage indemnified this Insured for the full value of the loss. A deductible of $50,000 was retained by the builder, along with a waiting period of 30 days for Soft Cost coverage.

Lessons Learned

Loss Prevention Works

The builder learned that its loss prevention strategies effected after the prior year loss were successful in controlling the extent of the damage caused by this loss.

Long Term Affect of Losses

It is noticeable that the deductible in this case was $50,000 whereas just the year before for the same insured the deductible was $25,000. The large wind loss of the year before, along with other losses and an overall lack of risk control meant this Insured had to accept an increase in its deductible in order to control its premium costs. The Insured learned that the loss of the prior year caused adverse effects that last more than the year in which the loss occurred.

Pollution Risk

Summary Description

Risk Category: Environmental	Average Impact	2

Definition of Risk

Accidental release of dangerous substances and/ or contaminants caused inadvertently in typical activities (e.g. Bulk fuel storage leakage) can cause environmental damage (e.g. Soil dispersion, sediment movement) and may result in significant financial responsibility.

Causes

- Water Contamination – surface and underground water table
- Construction Liquids – oils, lubricants, paints, tar, acids, chemicals, fuels
- Construction debris containing hazardous materials (paint, tar, etc...)
- Contaminants from historical use of the property or neighbouring premises
- Inadequate containment and loading/ unloading areas
- Soil/ groundwater contamination
- Soil Erosion – excavating, digging
- Lead, asbestos, PCB's and radioactive contamination
- Midnight dumping on vacant land parcels
- Sick building syndrome (carbon monoxide or bacterial air releasing from HVAC systems)
- Disposal of hazardous waste generated on site
- Air emissions causing offensive odours
- Spills of chemicals and fuels
- Lubricant oils and other fluids from field equipment
- Asbestos
- Mold
- Lead

Recommendations and Mitigation Strategies

Take proper precautions when excavating a construction site

Restrict the use of hazardous substances where it can contaminate groundwater

Label all hazardous materials stored on the construction site

Compliance procedures should be created, implemented and followed when working with any toxic materials

Toxic materials should be sealed and stored safely

Insurance Solutions

Comprehensive General Liability Policy

- Absolute Pollution Exclusion is standard
- Limited Pollution by endorsement – for Sudden/ Accidental losses
- Expanded Limited Pollution by endorsement – 120 hours to discover loss/ 120 hours after discovery to report loss

Other Policy Forms

- Contractors Pollution Liability – for contractors and subcontractors, project or annual
- Pollution Legal Liability – for owners and owner/ builders
- Environmental Property Transfer – for owners transacted property sales (like builders)
- Storage Tank Liability – for underground storage exposures
- Umbrella Liability – excess limits dedicated to environmental exposures

Case Study

Key Risk	Pollution Risk
Description of Event	PCB Contamination to Customer Soil
Insurance Coverage	Contractors Pollution Liability (CPL) Policy

Background

The builder in this case took possession of a large tract of land, previously used by heavy industry. The builder proceeded to clean and redevelop the Brownfield site for a new subdivision of houses and commercial buildings. During the clean-up process, a building and smaller structures were taken down. Where possible, parts of the old plant were sold to wreckers and scrap dealers.

In one particular transaction, an old transformer was sold to a scrap metal dealer. The dealer brought the transformer to its location. While dismantling it, 364 L of PCB contaminated oil spilled out of the transformer and onto the dealer's yard. The scrap dealer sued the builder for the cost of the transformer, the cost to clean-up the spilled pollutant and the economic loss resulting from the containment and shutdown of its processing yard.

Damages

Clean-up and Loss of Business - $350,000

Insurance Coverage

Contractors Pollution Liability is available to provide coverage for this circumstance. However, this particular builder did not carry a CPL policy and referred the loss to its General Liability insurer. The CGL insurer denied coverage, noting the "Absolute Pollution Exclusion" contained in the policy.

Lessons Learned

Scope of Coverage

The builder tried unsuccessfully to sue its insurer to get coverage for this loss. The builder learned that the pollution exclusion within a CGL policy has been tried and tested in the courts and it is well established that pollution losses are not covered by a CGL policy. The builder would have to purchase CPL coverage for future losses.

Loss Prevention and Mitigation

The loss could have been avoided if the builder had inspected the transformer before hand and hired a qualified PCB abatement contractor to drain the equipment and dispose of the contaminated oil. In so doing, the builder would have also transferred liability for any subsequent spills of the drained oil from itself to the abatement contractor.

Consider the Big Picture

The builder knew the dangers the transformer presented. Instead of spending a little extra money at the time to control these dangers, it took the less expensive road of simply getting rid of the property from its site. This "out of site out of mind" approach backfired as ultimately the builder paid over $500,000 in damages and legal costs. The original abatement contract would have been less than $100,000.

Products/ Service Failure Risk

Summary Description

Risk Category: Products/ Services	**Average Impact**	3

Definition of Risk

Faulty or non-performing products or services expose the builder to customer complaints, warranty claims, field repairs, returns, product liability claims, litigation and loss of revenues, market share and reputation.

Causes

- Faulty design and specifications
- Customer complaints
- Warranty claims
- Field repairs
- Returns
- Faulty Installation
- Product Liability claims
- Replacements
- Inferior quality of materials and services
- Defective work of subcontractors

Recommendations and Mitigation Strategies

Failure reporting procedures

Hiring proper number of site managers (foremen, superintendents) to monitor all site operations

Development of a key (approved) supplier list

Indemnity agreements in contracts, supported by evidence of appropriate insurance

Insurance Solutions

Comprehensive General Liability Policy
- Endorsed with Products & Completed Operations Coverage
- Some causes of loss may be excluded, such as warranties and indemnities

Case Study #1

Key Risk	Products/ Service Failure Risk
Description of Event	Faulty Installation of Plumbing Fixtures
Insurance Coverage	CGL – Completed Operations

Background

A year following completion of a subdivision of 50 houses, it was discovered that the plumbing installation of the bathtubs in many of the houses was incorrect. Water was leaking from the pipes and gathering below the bathtub, seeping into the framing and drywall. Over time the drywall and framing began to fail. Eventually water began to drip to the floor below, further damaging the home and its contents. In designs where the bathroom was built above the kitchen, a fluorescent light fixture filled with water until the fixture could not hold the weight. It crashed to the floor, furthering damage and shorting out the electrical service.

The initial blame for the damage was put upon the builder. The builder, in turn, blamed its plumbing subcontractor, who in turn blamed the loss on the manufacturer of the flux and sealant used in the installation.

Damages

Framing and Drywall Only - $5,000 per home @ 34 homes = $170,000

In addition to Frame and Drywall - $12,000 (average) per home @ 16 homes = $192,000

Total Damage - $362,000

Insurance Coverage

Comprehensive General Liability will cover this loss under the Completed Operations Hazard coverage.

Lessons Learned

Review of Subcontractors

Despite having insurance protection, this is the kind of loss a builder prefers to avoid. Even if the plumbing contractor is proven responsible, that is only a matter of subrogation. The builder is still liable to the homeowner that purchased the house.

To help prevent these types of losses, builders should demand that all subcontractors pass a rigorous qualification process. This particular builder now chooses its subcontractors very carefully, including an extensive review of references.

Certificates of Insurance

The builder should ensure that each of its subcontractors is adequately insured and such insurance is evidenced by a certificate of insurance. The builder should further demand by contract that certificates are filed for the one year following completion of the work, supported by a small holdback, or that the contractor provide coverage for completed operations for 12 months following the completion of the work. This is to ensure that if losses occur that are attributable to the completed operations, the subcontractor has adequate insurance to respond to any subrogation or recovery efforts initiated by the builder.

Supervision of Work

It is a good practice to have on staff or on piece work, at least one master plumber to review and inspect work done by trades. The plumber can report back to the builder regarding the quality and satisfaction of the work. This should also be done for all subcontractors.

Case Study #2

Key Risk	Products/ Service Failure Risk
Description of Event	Water Ingress Damages Residential Condominiums
Insurance Coverage	CGL – Completed Operations Professional Liability Policy

Background

In 2001, one of many famous cases in British Columbia, this claim was made against the developer, builder, contractors, structural engineer and design firm. In addition, the local municipality was sued for negligent approval of the building permits, negligent inspection of construction and negligent issuance of the occupancy permit.

Shortly after the units were occupied, owners began to complain about the construction of the decks and balconies failing to achieve the water run-off slope stipulated by the design and required in municipal building codes. Many surfaces apparently had no consistent slope at all, resulting in the pooling of water on these surfaces.

The unit owners were also experiencing water leaks into the interior of many units. These leaks followed periods of rain and wind and were noticed above and below windows and patio doors and through ceilings. The worst leaks followed heavy rains and were usually seasonal occurrences. Band-aid remedies were attempted through the application of various sealants at obvious points of entry.

Eventually, owners discovered that rotten trims and moulding would break under hand pressure, revealing the interior of the wall cavity. During repairs to a deck of a third floor suite, rot was found in the beams supporting the roof of one of the buildings. Removal of the deck revealed the beam rotted to the extent that pieces of the laminated beam could be pulled away by hand.

During the process of stripping the exterior, deficiencies in the structural design of the buildings were uncovered and repaired. The supporting joists below balconies and decks were not adequate to support these features over the distance spanned. Joists were not fixed into beams with adequate support and the deck structures were tied into chimney chases, which did not rest on foundation footings. These structural defects were improved as part of the overall repair project.

Damages

Total damage for all repairs and renovations and to bring the project up to code and design specifications for this particular project was $3,200,000. All the parties in this case are also involved in other similar cases. This is a "Mass Tort" legal issue for the parties and this case was appealed unsuccessfully in 2002.

Damages were apportioned by the court as follows:

Developer - 30 per cent
General Contractor - 25 per cent
Design Consultants - 25 per cent
Municipality - 20 per cent

Insurance Coverage

Comprehensive General Liability – Completed Operations Hazard re: builders and subcontractors; Professional Liability Policy re: Engineers and Designers. Comprehensive General Liability and reciprocal pools for the municipalities.

Lessons Learned

Environmental Design

The climate and weather patterns of the project site must be carefully considered before engaging in design and construction. Architects and engineers experienced in the region and knowledgeable of effective designs and appropriate materials should be consulted and contracted to do the design. Research into existing construction and similar construction in other similar environments is also very important.

Building to Code

Builders must always build to code. A key lesson learned here is the loss that can arise by not building to code.

Always Consult the Professionals

This project did not employ professional architects, only design consultants working for the developer. The developer bore the largest share of the blame largely because of their failure to supervise the design and inspections of the building. No subcontractors were named as defendants or third parties.

Comment

Many of the parties were insufficiently insured in scope and limits. In addition, due to losses occurring at other sites, aggregate limits of liability were exhausted quickly. Responsible parties suffered large, uninsured losses. The provincial government provided assistance to unit owners that could not recover their judgments or pay assessments on repairs.

Many lessons were also learned about the process of municipal planning for residential construction, issuing of permits and managing rapid growth.

Project Allocation Risk

Summary Description

Risk Category: General Management	**Average Impact**	3

Definition of Risk

Inability or accidental omission to transfer risk to a viable third party may result in unfavourable exposure to the builder.

Causes

- Ineffective negotiations and increased internalization of inappropriate risks
- Inappropriate insurance coverage
- Failure to transfer risks by contractual agreement
- Lack of knowledge

Recommendations and Mitigation Strategies

Contractual review support

Insurance adequacy review for all major contracts

(See Phase 2: Risk Allocation and Insurability Table)

Insurance Solutions

Depending on the circumstances any of the following coverage forms could potentially respond to this type of risk.

- Blanket Contractual Liability Coverage
- Comprehensive General Liability Policy
- All Risks Property Insurance Policy

Case Study

Key Risk	Project Allocation Risk
Description of Event	Accord and Satisfaction Language Barred Contract Claim
Insurance Coverage	No Insurance Coverage

Background

A statement was conspicuously contained in an enclosing letter with a cheque for final payment to a builder, stating that the cheque represents "final payment of the contract". However, the cheque did not represent the full payment expected by the builder. The owner took issue with the amount and quality of the work and disputed the amount of compensation due.

The builder cashed the cheque and sued the owner for the balance due. In response, the owner asked the court for summary judgment on the basis of "accord and satisfaction". The court granted the summary judgment as local law decreed "the claim is discharged if the person against whom the claim is asserted proves that the instrument or an accompanying written communication contained a conspicuous statement to the effect that the instrument was tendered as full satisfaction of the claim."

"Conspicuous" in this case means a term or clause that a reasonable person "ought to have noticed." The builder argued that the language was ambiguous and would not lead a reasonable person to conclude that full satisfaction of the claim was intended. The court found that the entire course of conduct and communication between these parties made it clear that the owner offered the cheque as final payment and considered that amount to represent the proper accounting under the contract.

Damages

$26,000 in unpaid work.

Insurance Coverage

There is no insurance available to protect the builder for this type of loss.

Lessons Learned

Read All Correspondence Carefully

The builder learned that it must carefully read all correspondence and understand the meaning. In the case, it was obvious that the owner disputed the amount due and was drawing a line in the sand. The builder should also be aware of the application of law in the jurisdiction where it works. Had this been known, the builder would not have cashed the cheque, but returned it to the owner and opened negotiations into their payment dispute.

It is not uncommon to have a project owner successfully persuade a judge that through a combination of a change order, payment authorization, and partial waiver and lien release, that a builder has agreed to a total accord and satisfaction of any and all claims related to any work related to the change order. This came as a surprise to the builder who never intended by signing the documents and cashing the cheque to waive its entitlement to the amount that it alleged to remain contested.

Despite correspondence and documentation submitted to the owner by the builder prior to the "accord and satisfaction," demanding payment and seeking to preserve its rights, a court held that the subsequent builder claim for the outstanding balance could be barred. The lesson learned is that language asserting a release and satisfaction must be taken most seriously, and, to assure that any right to a claim for additional monies is preserved, appropriate communication and action must be taken.

Site Security and Safety Risk

Summary Description

Risk Category: Personnel	Average Impact	3

Definition of Risk

Lack of site security and safety procedures at the construction site (toxic material handling, site visits, and uncontrolled work environments in remote locations) can cause unexpected injuries to employees, contractors and third parties.

Causes

- Exposure to hazardous chemicals
- Exposure to loud noises for long periods of time
- Inadequate training and ongoing communication
- Valuable equipment stored on premises
- Disposal of excess materials on construction site

Fire cause by:

- Loose or exposed electrical wiring
- Overheated electrical equipment
- Blowtorches and welding equipment
- Tar and boiler furnaces
- Smoking
- Natural Hazards (see Natural Hazards Risk)
- Arson

Recommendations and Mitigation Strategies

All flammable materials should be stored safely

Appropriate OHSA training

Regular inspections of wiring by qualified electrician

Inspection of all electrical equipment to ensure all components are in working order

Prohibit smoking on or around Construction Site

Store all valuable papers off site, or in a resistant lock box

Insurance Solutions

All Risk Property Policy

Multi-Peril Coverage Enhancements

Business Interruption Coverage

All Perils Builders Risk Policy

Builders Risk Soft Costs Coverage

Comprehensive General Liability Policy

Employers Liability Coverage

Workers Compensation Plan

Case Study

Key Risk	**Site Security and Safety Risk**
Description of Event	Criminal Sanctions for Failing to Dispose of Fumigant
Insurance Coverage	None

Background

After commencing work on the demolition aspect of a redevelopment project, the demolition subcontractor found two yellow canisters designed to hold gases under pressure. They had labels bearing crossbones and were marked poison. The superintendent for the builder and the owner of the subcontractor knew that the site owner had conducted an environmental site assessment which did not indicate the presence of any hazardous wastes or containers.

They removed the canisters from the building and set them in an open on-site area with the intent to have an environmental company remove them from the work site. A few weeks after they moved the containers, an employee of the project owner stole them from the site and gave them to his cousin who connected them to her propane stove and died from breathing methyl bromide that leaked from the containers.

The builder, demolition contractor and the employees involved were all charged with felony counts of storage of hazardous waste. They argued the canisters were not waste, but usable product to be returned to the manufacturer. They further argued that merely finding the canisters on a jobsite or moving them within than jobsite without further containment was certainly not a felony. The courts rejected their arguments. They were tried and convicted. Their convictions were held up on appeal.

Damages

Both companies and the key employees involved were found guilty of storage of hazardous waste in violation of environmental legislation and sentenced to five years probation and fines of up to $100,000.

Insurance Coverage

There is no insurance coverage for this particular loss. Policies expressly do not cover the payment of fines or criminal activity even if the insureds did not know they were committing a crime.

Lessons Learned

Know the Law

This case should serve as a warning never to handle hazardous materials, regardless of the volume, without obtaining professional advice concerning compliance with environmental laws. In this case, the canisters were not even moved off-site. They were merely moved from one location to another at the same site. Had there not been an intervening theft of the canisters, it is possible that they would have been properly returned to the manufacturer or disposed of by an environmental firm since the contractors had discussed both of these possibilities. It does not appear that the parties involved had any intent to mishandle the materials, harm the environment or people, or violate any law, yet they were convicted of a criminal act.

Act Immediately

Despite their lack of knowledge, the mere fact that the canisters were marked poison should have prompted the parties to take immediate action, contacting an environmental firm the same day as discovery to dispose of the material. This is a lesson to always treat hazardous and poisonous material as an emergency situation.

Supply Chain Risk

Summary Description

Risk Category: Asset Management	Average Impact	3

Definition of Risk

Inability or failure to acquire, transport or deploy required materials and equipment at the right time, location and cost (including property damage to suppliers delaying or preventing delivery) may result in delays and/ or additional costs.

Causes

- Unanticipated increase in input costs for suppliers/ trades
- Raw materials price increases
- Accident at supplier location cancels shipment of materials
- Delivery of materials to the wrong location
- Labour supply not as abundant in rural locations
- Accident during transportation to construction site
- Theft during transportation
- Labour strike at suppliers location

Recommendations and Mitigation Strategies

Alternative sources of necessary trades need to be explored as part of a broader contingency planning process when there is unavailability of the required trades

Contingency plans for suppliers in the event of breakdown of one key supplier

Contract wording allocating risk of error to suppliers

Insurance Solutions

Subcontractor Default Insurance

Property in Transit Coverage

Temporary Storage Coverage

Ocean Marine Insurance Coverage

Delayed Completion Coverage

Contingent Business Interruption Coverage

Case Study

Key Risk	Supply Chain Risk
Description of Event	Construction Delay Caused by Absence of Products
Insurance Coverage	Delayed Completion Coverage

Background

The builder undertook to build twelve luxury townhouses. One of the many special features of the homes was wrought iron fencing, window guards, outside stair rail and inside stair rail. The products were custom designed, built and finished with an authentic European look and feel.

Part of the arrangement of the wrought iron in the construction schedule was transportation to the construction site. The builder had the option of accepting full responsibility for transportation, or leaving it up to the design-manufacturer. Choosing the least expensive of the options, the builder left responsibility for shipping to the design-manufacturer.

The products were not delivered on time, delaying completion of the project by 90 days while replacement items were re-fabricated. The cause, according to the design-manufacturer, was an accident by the shipper that destroyed the products.

Extending the delay was a dispute between the builder and the design-manufacturer. The builder had pre-paid for the products. The manufacturer was insisting on second payment for the replacement as the destruction was not its fault.

Damages

Debt servicing expenses to due delayed closing - $36,750
Customer claims for additional living expenses - $134,460
Temporary wooden hand rails - $21,000
Re-purchase of the wrought iron - $190,000
Miscellaneous expenses - $25,000
Total Damages - $407,210

Insurance Coverage

Delayed Completion Coverage (however, it was not purchased by this builder and therefore there was no recourse for the loss)

Lessons Learned

Contract Negotiation

Custom and special products lost or damaged during construction take time to reproduce due to their custom nature. Builders should arrange within the construction and sale agreements stipulations that in the event of circumstances beyond their control, failure for products to be delivered will not delay the closing providing the products are not integral to the structure of the dwelling. Alternate products will be used on a temporary basis until the final products are delivered. No additional cost will be borne by the buyers. This builder had no such protection.

Responsibility for Transportation

Had the builder accepted liability for transportation, it would have also arranged insurance for the transportation on a first party basis and had recourse against such insurance for the cost of replacing the damaged items.

Insurance Protection

In an effort to cut expenses, the builder refused to consider non-standard insurance coverages and was therefore left uninsured for this loss. In the future, it will follow recommendations from its broker with more diligence.

Third Party Bodily Injury Risk

Summary Description

Risk Category: Personnel	**Average Impact**	3

Definition of Risk

Inability to adequately anticipate, prevent, and mitigate against third party injury (other than contractors) may result in unacceptable obligations (trespassers, neighbours, etc).

Causes

- Attractive nuisances
- Equipment collisions with pedestrians
- Improper maintenance and clean-up of the site
- Failure to post warning signs
- Lack of fencing
- Lack of security
- Poor knowledge of risk control by the labour force
- Lack of efficient strategy to respond to accidents
- Inadequate training and ongoing communication
- Private passenger vehicle accidents
- Heavy machinery and industrial equipment accidents (boom trucks, tractors, cement mixing trucks, dump trucks)
- Trespassers
- Slips and falls
- Live wires causing electrocution
- Explosions, collapse, underground construction
- Open holes, trenches, wells

Third parties on site include:
- Site inspectors (construction managers, architects, zoning and public safety officials, building code inspectors)
- Delivery personnel
- Salespeople
- Contractors

Recommendations and Mitigation Strategies

All third parties on site should be required to wear appropriate safety equipment (ventilators, hard hats, safety boots)

Signs erected indicating danger, employees only, hazard, use at own risk

Construction site should be well lit, locked and/ or guarded off-hours

Construction site should be maintained, cleaned, and debris removed

All holes/ trenches should be fenced or blocked off

Place protective fencing around the perimeter of the construction site to obstruct loose objects

Traffic procedures, speed limits, and staff to direct heavy equipment

Designated loading and unloading areas away from pedestrian and public vehicle pathways

Insurance Solutions

Comprehensive General Liability Policy

Automobile Liability Coverage

Case Study

Key Risk	Third Party Bodily Injury Risk
Description of Event	Construction Equipment Injured Pedestrian
Insurance Coverage	Comprehensive General Liability

Background

An equipment operator carelessly reversed a backhoe without ensuring the route was clear. The backhoe collided with a third party causing bodily injury.

Damages

General Damages - $5,000

Fortunately, injuries to the third party were not serious. The case was settled voluntarily and expenses were kept to a minimum.

Insurance Coverage

The CGL policy provided indemnity to the builder for injuries its employee caused to the third party. There was no deductible in this case.

Lessons Learned

Reversing Procedure

A "Reversing Procedure" must be in place for the use of all equipment. This should include the installation of reversing alarms, sensors and a person outside the vehicle to direct the operator and ensure the route is safe. Construction machinery is awkward to operate due to limited sight ability and machinery mechanisms obscuring the driver. In addition, the machines are relatively quiet compared to the overall sound of the construction sight and therefore pedestrians and workers may not be aware of an approaching machine. Caution should always be exercised.

Third Party Property Damage Risk

Summary Description

Risk Category: Asset Management	**Average Impact**	3

Definition of Risk

Damage to third party property at or on the construction site (contractor's plant and equipment) may result in financial damages and/ or construction delays.

Causes

- Improper use of product (commercial use of a residential property)
- Inadequate training and ongoing communication
- Private passenger vehicle accidents
- Heavy machinery and industrial equipment accidents (boom trucks, tractors, cement mixing trucks, dump trucks)
- Accidents from loading and unloading
- Explosions, collapse, underground construction
- Damage to public gas, electric, water and telecommunications connections
- Objects that are blown or dropped can damage third party property (automobiles)

Third parties include:
- Site inspectors (construction managers, architects, zoning and public safety officials, building code inspectors)
- Delivery personnel
- Salespeople
- Contractors

Recommendations and Mitigation Strategies

Policies and procedures for all causes to ensure stakeholders have been prudent in their acts

Procedure for review of hold harmless agreements with contractors

Proof of insurance should be mandated from all contract workers

Background check of loss history of contract workers

Signs erected indicating danger, employees only, hazard, use at own risk

Construction site should be maintained, cleaned, and debris removed

Place protective fencing around the perimeter of the construction site to obstruct loose objects

Traffic procedures, speed limits, and staff to direct heavy equipment

Designated loading and unloading areas away from public property

Insurance Solutions

Comprehensive General Liability

Broad Form Property Damage Coverage

Case Study #1

Key Risk	Third Party Property Damage Risk
Description of Event	Rupture to Sewage Line
Insurance Coverage	Comprehensive General Liability

Background

The careless use of a backhoe while digging ruptured the sewage piping below the work site. Damage was caused directly to the pipeline and to neighbouring premises by escaping sewage.

Damages

Damage to Sewage Pipe, Neighbouring Property and Clean-up Costs - $65,000.

Insurance Coverage

The builder's CGL policy provided coverage for the $65,000 of costs incurred by the loss. The Insured had to absorb the deductible of $5,000.

Lessons Learned

Digging Protocol

No digging should ever commence without knowing what is beneath the surface including sewage, water, natural gas, telecommunication and water utilities. Diagrams and maps should be obtained from local utility authorities. Once digging commences, care must be exercised to ensure there is no damage to existing service conduits. A digging protocol should be designed and administered by the builder that would include work pace, process and protection of property.

Comment

This kind of loss is easily preventable. It is the type of claim that negatively affects loss history and the ability of the builder to procure competitive terms and prices for insurance. This is because insurers expect builders to take all precautions necessary to avoid losses, including proper training and administration of procedures regarding employees and subcontractors. Insurers view builders that incur preventable losses as the kind of risk that will continually incur such losses. As a result, premiums and deductibles are higher and terms and conditions are more restrictive. It can make it very difficult for the builder to find coverage in this situation.

Case Study #2

Key Risk	Third Party Property Damage Risk
Description of Event	Window Damage due to Construction Noise Vibration
Insurance Coverage	Comprehensive General Liability

Background

While working at its site, the construction noise vibration caused by the builder broke windows in the houses of neighbouring premises.

Damages

Broken windows owned by third parties - $10,000.

Insurance Coverage

The CGL policy provides coverage for the loss under the Property Damage provisions. The builder would have to incur the deductible.

Lessons Learned

Protection from Noise Vibration

Windows need to be protected from the vibration hazards created by construction sites. If a site is located in such close proximity as to present a hazard due to noise, precautions should be taken to protect the property of neighbouring premises. These precautions would consist primarily of noise containment actions such as sound barriers. Communication with the neighbouring houses is very important in order to help the owners prepare for construction noise and co-operate with loss prevention techniques.

End Result

This builder absorbed the entire loss as it was not significant enough to transfer to insurers. Insurers did open an investigation and incurred roughly $1,400 in expenses.

Vandalism/ Terrorism Risk

Summary Description

Risk Category: Asset Management	**Average Impact**	3

Definition of Risk

Vandalism, terrorist acts, sabotage, demonstrations, or theft may result in unacceptable downtime or obligations.

Causes

- Valuable equipment is stored on premises
- Location of the construction site makes it susceptible to trespassers
- Specialized vehicles are the target of vandalism/ terrorist attacks
- Lack of security on the premises

Recommendations and Mitigation Strategies

Reference checks performed on all new hires

Construction site should be monitored at night

Construction sites should have proper lighting at night

Construction sites should be furnished with fencing and "No Trespassing" signs

Alarm systems should be installed at permanent offices

Vehicles should be designed with alarms

All access gates should be locked

Insurance Solutions

All Risks Property Insurance Policy

Business Interruption Coverage

All Perils Builders Risk Insurance Policy

Builders Risk Soft Cost Endorsement

Terrorism Insurance Coverage

Delayed Start-up Coverage

Case Study

Key Risk	Vandalism/ Terrorism Risk
Description of Event	Vandalism to Townhouse Project
Insurance Coverage	All Perils Builders Risk Coverage

Background

At its site, a builder entered the residential building market by entertaining some condominium projects. It was constructing a series of townhouses as part of an overall project when it suffered repetitive losses due to vandalism. Over a period of three months, from June through August, vandals repeatedly caused damage.

Damages

Installed windows broken by thrown objects - $25,000

Fire set and caused damage to three units - $150,000

Several incidents of theft of drywall sheets - $2,500

Re-installed windows broken by thrown objects - $10,000

Exposed foundations spray-painted with graffiti - $5,000

Total Damage - $192,500

Insurance Coverage

All Perils Builders Risk Coverage provided indemnity for each of the losses. However, the builder incurred its $2,500 deductible five times for a total retention of $12,500, plus other incidents where damage did not exceed the deductible.

Lessons Learned

Loss Frequency Damages the Insurance Program

The Insurer of this builder refused to renew the policy. A new insurer accepted the risk at a 200 per cent rate increase followed by increases of 100 per cent in each of the successive two years.

Security is its own Reward

Inadequate security and poor risk management contributed to these losses. The security guard at the site was either incompetent or a conspirator. The quality of security should have been reviewed from the time of the first incident. Had the builder invested a little more in security, it would have saved large sums of money by making deductibles redundant, eliminating small losses it had to retain and most importantly, huge savings in insurance costs.

Always Confirm Subcontractor Insurance

Adding insult to injury, the security company hired for this site had no insurance and no financial resources. Therefore the builder was unable to recover its losses based upon the negligence of the security company. Had the builder verified coverage and obtained a certificate, its chances of successfully holding the security company liable would have been greatly improved.

Final Comment

This particular builder exited the Residential Construction Industry having suffered a net loss on its investment.

2

Phase 2: Variability in Insurance Parameters & Traditional Insurance

Introduction

As a background to discussing alternative construction insurance, it is necessary to identify and analyze the current issues faced by builders with respect to traditional insurance and the parameters upon which the insurance is based.

The purpose of Phase 2 is to identify and discuss these issues, explain the parameters that form the basis for traditional insurance placements and analyze the various forms of traditional insurance coverage available today.

Phase 3 of the study will build upon this information in an effort to introduce and discuss alternative methods of risk management over the traditional practice of transferring all risk to insurers.

Throughout this Phase many qualitative statements are made. These statements are based upon a survey and research conducted by Deloitte & Touche and published in its document "Research in Residential Construction: an Environmental Scan" in December 2003 for the Canada Mortgage and Housing Corporation. This reference material has been used with the permission of CMHC.

Insurance Issues Facing Builders

Using issues evidenced by the Deloitte & Touch Environmental Scan, Marsh's construction practice has prioritized the following issues from 1 to 8 and according to which ones have the potential to cause the greatest amount of expense to builders in Canada over the course of the next twelve months (the first causing the greatest expense, and the last causing the least expense):

Schedule of Current Issues

1. Reduction of Coverage Limits
2. Increased use of Warranties
3. Refusal of Coverage
4. Significant Premium Increases
5. Increase in Deductibles
6. Insurer Exit from Class
7. Selective Underwriting
8. Non-Submitted Losses

The following tables define each issue, and summarize the causes and the impacts of each issue on a builder's insurance program. Reduction of coverage limits potentially results in the greatest expense to a builder, and non-submitted losses potentially result in the least expense to a builder.

	Reduction of Coverage Limits Rank 1
Issue	Builders are finding it difficult to obtain a policy that provides coverage equal to the maximum value of exposed property. For example, if a builder has a project under development with an amount subject of $25,000,000, it will be hard to find a single insurer to provide a $25,000,000 limit. A staggering 75 per cent of builders report accepting lower limits of coverage due to the lack of availability of limits.
Cause	There are two main causes for reduction in coverage limits. The first is the insurer's own desire to control underwriting losses and cap its maximum exposure to any one loss. The second reason is the reinsurance market. Insurers are unable to purchase as much reinsurance today as they did a few years ago. This means they cannot offer the same limits to their customers unless they take on more risk themselves. Insurers cannot assume more risk because it exposes them to losses that will produce financial results unacceptable to shareholders.
Impact	The builder must increase its costs by arranging subscriptions or excess coverage or increase its costs by altering its construction schedule to ensure the amount subject remains within its coverage limits. The key phrase is "increase its costs". Another result is builders operating with insufficient coverage or no coverage at all. This is a very dangerous practice. Some may refer to it as "self-insuring" but in reality it is "not insuring". If there was a loss, the builder would not be in a position to indemnify itself as no plan for alternative financing of a loss has been created or funded.

Increased use of Warranties and Warranty Conditions Rank 2

Traditionally, builders risk policies for builders were subject to a few practical warranties to ensure the builder carried out some basic loss prevention measures at the project site. Competition in the mid to late nineties eliminated many of these warranties. The recent hard market has seen the return of warranties with a vengeance.

50 per cent of builders reported a general increase in the number of warranties required on their projects.

Warranties now exist on nearly all policies, regardless of the size or quality of the project. Warranties in general are not the issue. It is the ***number*** of warranties causing the real problems. There are as many as 12 warranties attached to builders risk policies for builders, the most common of which are listed below and are described in more detail in Appendix D.

Issue

- Watchman Warranty
- Open Flame Warranty
- Refuse, Waste and Debris Warranty
- Fence Warranty
- Lighting Warranty
- Hot Works Operations Warranty
- Fire Extinguisher Warranty
- Access Road Warranty
- Hydrant Warranty
- Subcontractor Warranty
- Material Storage Warranty
- Fire Break Warranty

In addition to warranties being applied more frequently, the conditions of the warranties are more restrictive and more difficult to meet. For example, some Watchman Warranties will not accept the employees of the builder to also be watchmen. In that case, the builder must hire a private security company at an additional cost.

Cause

Warranties are another underwriting measure designed to reduce the likelihood of paying losses on a frequency or severity basis. Although understandable, some insurers have become unreasonable in their expectations for warranties.

Impact

Conforming to warranties means hiring extra supervisors, increasing the time it takes to perform functions, hiring watchmen, increasing refuse collection, building fences, adding lighting and building "temporarily permanent" roads, all of which increases overall costs. The most severe cost increase would be absorbing a loss denied for failing to maintain warranty standards. However, with so many warranties to consider, it is understandable that there will be failings. Adding warranties to the policy causes a builder to change its business practices. New habits are hard to form and old habits are hard to break. This leads to problems at the time of a loss.

Approximately 37 per cent of builders state that increased use of warranties has increased construction costs between 1 per cent to 7 per cent of the total project cost.

Refusal of Coverage — Rank 3

Issue	Many builders have found it very difficult to purchase insurance coverage, often being refused by several insurers. 12.4 per cent of builders have been denied insurance in the past 12 to 36 months.
Cause	Insurers have well defined criteria that a builder must conform to in order to procure builders risk insurance on a project. Prior losses or poor financial condition are two of the reasons for refusal of coverage. Location of the project and ability to conform to warranties are yet other reasons. Finally, insurers make character judgments based upon past dealings with builders.
Impact	Inability to obtain insurance leaves a builder with no choice but to cancel the project. It will be unable to arrange financing without insurance and it cannot protect itself from the risk of loss without insurance. If the builder does operate without insurance, it could be disastrous. A business risks insolvency by operating without insurance due to the potentially catastrophic financial impact of a large loss.

Significant Premium Increases Rank 4

Issue

Builders have experienced exponential premium increases in the past three and half years. According to 81 per cent of builders, insurance cost increases are outpacing construction cost increases. Our conclusion is that the increase of insurance costs is contributing to an increase in construction costs. Although the rate of increase has halted, premiums are now two to three times higher than just a few years ago. About 34 per cent of builders still expect their premiums to increase in the next three years.

For many years prior to the recent hard market, insurers experienced unprofitable underwriting returns. For every dollar of premium received, insurers typically paid about $1.05 in claims and expenses. Insurers invest premium dollars and rely on investment returns to earn a net operating profit and produce an ROE in the 8 per cent range. A number of factors combined to end the use of this model:

1. Since 2001, insurers have experienced generally declining investment returns. Although there have been some peaks and valleys, investment returns earned in the early 21st century are generally less than those earned in the late nineties. This causes a loss of top line revenue for insurers – revenue used to subsidize underwriting losses.

Cause

2. Shareholders demand better performance from insurers. With other financial institutions earning ROE of 15 per cent or more, investors are expecting general insurance companies to do the same. In order to increase ROE from 8 per cent to 15 per cent in the face of declining investment income, insurers had to alter underwriting strategies to earn an underwriting profit. For every dollar of premium revenue, claims and expenses cannot exceed $0.92. This is achieved primarily through increased rates, but also through increased deductible, restrictive conditions and better loss prevention measures.

3. Two significant, multi-million dollar catastrophes occurred on homebuilding projects in Calgary and Toronto. These events caused insurers to reconsider participation in homebuilding risks.

4. Many insurers exited the homebuilding market, reducing the number of competitors, further driving up prices. Insurers that did not exit faced new conditions and restrictions from reinsurers, reducing capacity and increasing premiums, which were then passed on to builders.

These factors are the root causes for the steep increase in premiums for builders.

Contrary to popular belief and discussion, it is our opinion that the events of September 11, 2001 had very little impact on insurance premiums in Canada, and any such impact was strictly indirect. Even without that catastrophe, premiums in Canada for builders (and most other classes) would still have increased significantly.

Premium increases increase builders' cost of work, or decrease profit. Neither option is very appealing.

Impact

By increasing the cost of work, builders become less competitive which will affect top line and bottom line performance. All builders face this problem, but because increases are not proportional, some builders are faced with considerably higher costs than others. Reducing the profit margin may make the builder more competitive, but it reduces the financial strength of the company and the risk/ reward balance of the project. In addition, if the builder requires bonds, reduced profit may affect their ability to maintain their current capacity of work due to restrictions imposed by the Surety.

Even beyond the detrimental affects to the builder, the increase in insurance costs has increased the price of new homes. Reduction in construction capacity further increases the price of new homes as supply does not meet demand in the housing market as written by Toronto Building Exchange in its July 19, 2004 issue.

Increase in Deductibles

Rank 5

Issue

Deductibles have increased dramatically in residential construction insurance. Where a builder used to be responsible for the first $2,500 or $5,000 of loss, it is now responsible for deductibles in the $10,000, $25,000, $50,000 and $100,000 range, depending upon the project and the builder. Some deductibles exceed $250,000.

Deductible increases are primarily driven by insurer requirements. However, 31 per cent of builders indicate they voluntarily increased their deductibles above insurer demands in order to take advantage of premium savings.

Cause

The increase in deductibles is largely an underwriting action taken by insurers intending to eliminate the indemnity and expense of small losses, reduce the indemnity on larger losses and force the builder to have a more meaningful interest in preventing losses. Although 31 per cent of builders report increasing deductibles to reduce rates, often the reduction in premium is not worth the increase in deductible. There is a balance that needs to be achieved. Without it, the builder may incur a substantial increase in cost.

Impact

Higher deductibles increase the total cost of risk. Deductibles of a significant nature eliminate the ability to claim for losses that are small by insurer standards, but large to the particular builder. Larger deductibles increase costs, which in turn reduces profit and competitiveness.

Insurer Exit from Class

Rank 6

Issue

There are fewer insurers offering builders risk policies for builders today than there were three and half years ago. About 9 per cent of builders were denied coverage due to their insurer exiting the homebuilding class or specific geographical region.

Cause

The simple answer is insurers have decided this class of business does not present a viable opportunity to earn a profit. Insurers that have suffered losses in this class were even quicker to exit the business.

The small amount of insurers that remain willing to write this class have increased rates, increased deductibles, reduced coverage limits and added warranties, all of which increases the costs for the builder and ultimately for the consumer.

Impact

There are currently less than five insurers available to write builders risk policies for builders in most jurisdictions in Canada. There is a positive outlook for new entrants into the market. Now that premiums are higher, deductibles are higher and terms are more restrictive, potential new insurers can see the possibility for-profit in this class. There have been at least two new frame construction builders risk programs created in Canada in 2004.

Selective Underwriting

Rank 7

Issue

Insurers are more selective about which builders will qualify for coverage. As noted, about 12 per cent of builders were denied coverage in the past three years.

Cause

Tight underwriting strategies designed to achieve aggressive ROE goals are the cause of this problem.

Impact

When insurers refuse coverage to a builder, that builder has reduced options for insurance. The builder will be left with no choice but to accept expensive programs with higher deductibles and greater restrictions, all of which increase the cost of risk.

Non-Submitted Losses

Rank 8

Issue	Many builders are not submitting losses to their insurers even when the loss exceeds the deductible. Over the past three years, 69 per cent of builders absorbed insured losses rather than present them to their insurers. Most of the losses were due to theft and vandalism and ranged between \$5,000 and \$15,000.
Cause	Builders are afraid that making a claim will result in a disproportional increase in insurance premiums and deductibles, or they will be denied renewal by their insurer.
Impact	Increased cost of risk is the ultimate result. In addition to insurance premiums, builders are paying for their own small losses.

Improving Conditions

There have been improvements in the marketplace, which has provided some relief to builders. Increases in pricing and retention instituted over the past three years, expanded use of warranties and increased focus on loss prevention by builders has motivated some insurers to reconsider their position on construction insurance for new homes.

The continued demand for new homes and the prospect of producing a profit has led to an increase in capacity and some stability in rates. This has made the market for builders insurance in Canada more attractive to investors from within Canada, the United States, the United Kingdom and Bermuda.

Parameters Affecting Insurance Policies

The parameters upon which an insurance policy is based contribute greatly to the variability, availability and affordability of those policies. The following table states the key parameters upon which the underwriting of an insurance policy is based:

Direct Parameters	Indirect Parameters
Operations of the Insured	Character
Scope of Coverage	Claim Protocol
Exclusions	Dispute Resolution
Object of Coverage	Risk Control
Deductible	Loss Prevention
Underwriting Criteria	Reporting Requirements
Loss History	Cancellation/ Non-Renewal

The methodology for compiling the data is an organized and logical analysis of our own information and experience with various leading underwriters in Canada. This is a "Total Cost of Risk" analysis. We define total cost of risk as the combined financial effect of insurance rates, retention and contract wording upon the Insured.

For example:

- Assume a typical builder received two quotes for Builders Risk insurance as follows:

Quote Details	Insurer A	Insurer B
Annual Premium	$25,000	$22,500
Deductible	$5,000	$10,000
Soft Costs Included	Yes	No

- Suppose the builder incurs a claim during the year totalling $50,000 of which $5,000 is due to soft costs. What would be the total cost of risk for the builder under each of the offered quotes?

Risk Cost	Insurer A	Insurer B
Annual Premium	$25,000	$22,500
Deductible	$5,000	$10,000
Soft Costs Included	$0	$5,000
Total Cost of Risk:	**$30,000**	**$37,500**

- Under the loss described, the builder would have to incur a $10,000 deductible with Insurer B and the full value of Soft Costs since Insurer B does not cover this part of the loss. Although Insurer B appears to be the least expensive quote, the fact is the Insured would spend less money with Insurer A.

This above example highlights the importance of considering policy parameters when making decisions to purchase insurance. It is recommended that the builder consult carefully with its broker before making any decisions.

The table on the following page summarizes this analysis.

Direct Parameters - Impact on Total Cost of Risk

Parameter	Impact on Rate	Impact on Retention	Impact on Premium	Impact on Wording	Total Cost of Risk
Operations of Insured	Direct Impact Proportional to the hazard.	Moderate Impact Severe hazards require higher retention levels.	Direct Impact Proportional to the hazard.	Moderate Impact Severe hazards mean added exclusions/ warranties.	Proportional to Hazard High hazard operations increase cost of risk.
Scope of Coverage	Direct Impact Proportional to scope of coverage.	Moderate Impact Higher retention for some perils (ex. Earthquake, Flood)	Less than Proportional Perils can be added at lower unit cost. May be sublimited.	Direct Impact Scope of coverage dictates policy wording.	Reduce Cost of Risk Reductions will be less than proportional.
Exclusions	Variable Impact Exclusions may/ may not affect rate.	Severe Impact Insured retains full exposure to loss.	Variable Impact Exclusions may/ may not affect premium.	Direct Impact. Exclusions restrict scope of coverage.	Increase Cost of Risk May/ may not be more than proportional.
Object of Coverage	Direct Impact Proportional to the hazard.	Moderate Impact Severe hazards require higher retention levels	Direct Impact Proportional to the hazard.	Moderate Impact Severe hazards mean added exclusions/ warranties.	Proportional to Hazard High hazard objects of coverage increase cost of risk.
Deductible	Direct Impact Rate fluctuates proportionally to deductible to a threshold.	Direct Impact Retention fluctuates proportionally with deductible.	Direct Impact Premium fluctuates to level of deductible to a threshold.	Low Impact Potential to add perils or remove exclusions/ warranties.	Proportional Deductible and premium need to be balanced.
Underwriting Criteria	Direct Impact Proportional to hazard determined by criteria.	Moderate Impact Severe hazards require higher retention levels.	Direct Impact Proportional to hazard determined by criteria.	Moderate Impact Sever hazards mean restricted scope of coverage.	Proportional to Hazard Criteria revealing high hazard increases cost of risk.
Loss History	Direct Impact Proportional to frequency, severity and recurrence.	Direct Impact Retention used by insurers to control frequency.	Direct Impact Proportional to frequency, severity recurrence potential.	Direct Impact Scope of Coverage reduced if prior adverse history.	Proportional to History Adverse history will increase cost of risk.

Indirect Parameters - Impact on Total Cost of Risk

Parameter	Impact on Rate	Impact on Retention	Impact on Premium	Impact on Wording	Total Cost of Risk
Character	Indirect Impact Determines acceptability of risk more than specific rate.	Moderate Impact Proportional to risk control characteristics	Indirect Impact Determines acceptability of risk more than specific rate.	Moderate Impact Proportional to risk control characteristics.	Based on Acceptability Poor characteristics limit options, increase costs
Claim Protocol	No Impact	Moderate Impact Proportional to the quality of claims management.	No Impact	Moderate Impact Proportional to the quality of claims management.	Reduces Cost of Risk Proportional to reduction in losses.
Dispute Resolution	No Impact	No Impact	No Impact	Direct Impact Dispute resolution process forms part of policy wording.	Reduces Cost of Risk Proportional to reduction in costs to settle losses.
Risk Control	Indirect Impact Determines acceptability of risk more than specific rate.	Moderate Impact Provides more choice for the Insured.	Indirect Impact Determines acceptability of risk more than specific premium.	Direct Impact Good risk control can eliminate exclusions/ warranties.	Reduces Cost of Risk Proportional to cost/ benefit.
Loss Prevention	Moderate Impact Proportional to quality of prevention program.	Moderate Impact Proportional to program effect on loss frequency.	Moderate Impact Proportional to quality of prevention program.	Direct Impact Good programs will eliminate exclusions/ warranties.	Reduces Cost of Risk Proportional to cost/ benefit.
Reporting Requirements	No Impact	No Impact	No Impact	Direct Impact Reporting requirement form part of policy wording.	Limited Impact Proportional to cost/ benefit of reporting process.
Cancel/ Non-Renew	Indirect Impact Determines acceptability of risk more than specific rate.	No Impact	Indirect Impact Determines acceptability of risk more than specific premium.	Direct Impact Can be clause outlining termination conditions.	Based on Acceptability History of cancellation will limit options, increase costs.

Insurance Forms

Introduction

The type of policy purchased by the builder has a direct impact on the total cost of risk. Following is a summary of the various types of insurance forms available in Canada today. Each form is described according to a set of criteria, separated by those policy forms available in the competitive market and those policy forms available only through government-owned non-competitive markets.

The variability is summarized in a general manner. Where permissible, references to specific Insurer forms in an example format are included. Please see Appendix E for a matrix of insurance companies offering each form of coverage. It is not the intent of this document to compare the line for line coverage scope of various policies, but rather to educate builders on the general meaning and availability of those policies in order to make well-informed buying decisions.

Competitive/ Private

All Risk Property Insurance
Contractors Equipment Floater
Builders Risk Soft Cost Coverage
Crime Insurance
Contractual Liability
Non-Owned Automobile Liability
Owners' and Contractors' Protective Liability
Umbrella Liability Coverage
Contractors Professional Liability
Delayed Completion/ Liquidated Damages
Combined Delayed Completion/ Force Majeure
Contractors Default Insurance
Surety Bonds (Not Insurance)

Builders Risk Insurance
Business Interruption Coverage
Property in Transit
Commercial General Liability
Tenants Legal Liability
Employers' Liability
Excess Liability Coverage
Wrap-up General Liability Coverage
Contractors Pollution Liability
Force Majeure Insurance
Inherent Defects Insurance
Automobile Insurance
Directors & Officers Liability Insurance

Non-Competitive/ Public

Workers Compensation

Provincial Automobile Insurance

As part of the analysis, each policy is summarized to describe the respective advantages and areas of concern.

Description and Analysis of Insurance Forms

The language in this section is directed toward the builder in order to "cut and paste" these sections into a final product designed to be a buyer's guide for builder's insurance.

Business Property Insurance

Purpose/ Overview	Designed for buildings, contents and equipment, this coverage will protect you from physical damage to your property caused directly by a peril.
Description	Covers "all risks" of direct physical damage including but not limited to fire, lightning, windstorm and hail, leakage from fire protective equipment, explosion, smoke, falling objects, impact from land or air vehicles, theft, vandalism and malicious damage. An "all risks" policy does not actually insure "all risks" or "all property". The policy contains several exclusions. Here are a few examples of perils and property ***not*** covered by Property Insurance:
Conditions/ Comments	Property not covered: ▪ Money, securities and precious metals ▪ Property in the course of transportation ▪ Land, water, crops and lawns ▪ Automobiles and machines licensed or used off premises Perils not covered: ▪ Collapse ▪ Wear and tear, deterioration, sudden or latent defects ▪ Delay, loss of use, loss of market or loss of occupancy ▪ Release or escape of pollutants
Variability Checklist	The policy can be endorsed to add the perils of earthquake, flood and sewer back-up, subject to an increase in premium and higher deductibles. Is there a co-Insurance Clause? Some policies are "no-co", while others are "Stated Amount", or percentage of value such as 80 per cent and 90 per cent. The Valuation Clause will either be ACV (Actual Cash Value) or Replacement Cost. Many insurers add numerous additional coverage forms for lower limits at no additional cost known as "Multi-Perils Extensions". All policies differ in the number of extensions and the limits offered. Sublimits may exist for key coverages and should be reviewed carefully, especially when changing insurers.
Availability in 2004	Total Insurers: 81 Insurers Accepting Builders: 19

Builders Risk Insurance

Purpose/ Overview

Builders Risk also provides all perils property insurance coverage, but is designed specifically for structures ***in the course of construction***, such as a phase of new homes being built in a subdivision.

Description

It covers the same perils as All Risks Property Insurance, but may have some ***additional exclusions***, for example:

- Asbestos removal
- Pollution
- Boiler/ Machinery
- Normal settling
- Wear and tear
- Collapse (unless by insured peril)
- Water or flood damage
- Earthquake damage
- Testing and hot testing
- Mysterious disappearance

All but asbestos removal, wear and tear and mysterious disappearance can be added by endorsement for an additional premium.

The Builders Risk policy will include materials, fixtures, supplies and machinery to be ***incorporated into the work***. If necessary, coverage can be arranged for scaffolding, temporary structures, underground works, hardscaping or landscaping. Property typically not covered includes:

- Contractors tools and equipment
- Existing structures
- Land and water
- Bridges, dams and dikes

Conditions/ Comments

Property stored off premises or property in transit can be covered by a Builders Risk Policy, but usually at an additional premium and subject to a lower limit of coverage.

Builders Risk Insurance can be purchased for a specific project or on a blanket basis covering all projects undertaken in a specific year.

Policies may or may not include Soft Costs in the limit. In addition, Transit and Off-Premises coverage should be reviewed to determine if they are within the policy limit, subject to a sublimit or not included at all.

Variability Checklist

Other additional coverages may include:

- Expediting Expenses
- Fire Department Service Charges
- Professional Fees
- Pollution Clean-up and Removal

Availability in 2004

Total Insurers: 12
Insurers Accepting Builders: 10

Contractors Equipment Floater

Purpose/ Overview	Although contractor's equipment, such as bobcats, tractors and cranes, are forms of property, they are not covered by an All Risks Property Policy. A special form of coverage known as a Contractor's Equipment Floater is designed to protect your equipment.
Description	Similar to All Risks Property and Builders Risk insurance, Contractor's Equipment covers you for all perils of direct physical loss, except for a list of exclusions. In addition, the policy may also provide coverage for newly acquired equipment and rental reimbursement, which will cover the cost of renting equipment to replace equipment damaged by a covered peril.
Conditions/ Comments	Some exclusions that appear in a Contractor's Equipment Floater are: ▪ Mechanical breakdown or failure ▪ Wear and tear, hidden or latent defect, freezing or overheating ▪ Unexplained disappearance ▪ Weight of the load exceeding registered lifting capacity ▪ Breaking through ice or subsidence of ice
Variability Checklist	There are numerous variables that will exist for this form of coverage. Below is a checklist of the most common elements: ▪ Co-Insurance Clause ▪ Valuation Clause ▪ Rental Equipment included in limit? ▪ Rental Equipment sublimit? Additional Coverages, such as: ▪ Newly acquired equipment ▪ Equipment rented by the insured ▪ Equipment rented to the insured ▪ Loss of use ▪ Waiver of subrogation ▪ General average charges included ▪ Salvage charges included ▪ Annual reporting of owned/non-owned values
Availability in 2004	Total Insurers: 22 Insurers Accepting Builders: 10
Note	Insurers are split between expert Inland Marine insurers and non-expert Property insurers. Expert insurers tend to be more expensive, but understand claims situations better and settle losses more expediently.

Business Interruption Coverage

Purpose Overview

Business Interruption is a form of ***indirect*** or ***consequential*** damage protection. The main purpose of Business Interruption is to provide indemnity for loss of income resulting from the loss of property damaged by a peril covered by All Risks Property or Builders Risk insurance.

Description

Profits Form Business Interruption

This form of coverage will indemnify you for the cost of continuing to operate your business while it is shut down due to an insured loss. In addition to regular business costs, it provides the lost profit normally earned through operations and the additional expenses incurred as a result of the loss.

Extra Expense Form

Some builders would not lose revenue even if their office location was totally damaged due to a loss. This is because revenue is earned entirely off-premises. However, in such a circumstance, the Insured will incur many additional expenses to re-establish a new office and base of operations. Extra expense provides indemnity for the increase in business expense necessary to establish a new office or a temporary office to be used while the original office is repaired or rebuilt.

Conditions/ Comments

Profits Form Business Interruption

The indemnity period begins 24 to 48 hours after the loss (a time period deductible) and continues until you are back in full operation and have returned revenue to the same level it had been prior to the loss, for a maximum of 12 or 24 months, known as the indemnity period. You will continue to be indemnified even if the policy expires before the indemnity period expires. The loss, however, must have occurred during the policy period.

Extra Expense Form

Additional expenses can include office space, leasing telephone equipment, leasing computer equipment and additional increases in overhead expenses. The key is that it provides only the ***additional*** expense. For example.

- Assume a business pays $1,500 a month in rent to its landlord. Following a loss, the business had to rent temporary space in another building at a cost of $2,000 per month. Depending upon conditions in the original lease, the business may not have to pay any rent to the original landlord until the office has been fully restored. In that case, the increase in expense to the business is only $500 as the insured would have been paying $1,500 even if the loss did not occur. Extra expense will cover that additional $500.

Variability Checklist

Most forms in Canada are similar with respect to the Profits Form and Extra Expense Form. There are differences in the deductible, which ranges from 24 to 48 hours, the co-insurance clause which may be 50 per cent or 100 per cent and the indemnity period, ranging from 12 months to 24 months. Variable terms can be arranged with corresponding changes in premium.

Availability in 2004

Total Insurers:	81
Insurers Accepting Builders:	17

Note

Business Interruption is usually added by endorsement or packaged into an All Perils Property Policy.

Builders Risk Soft Costs Coverage

Purpose/ Overview

This form of coverage is also a ***consequential loss*** and is usually added by endorsement to the Builders' Risk policy. It will extend the policy to cover financial losses occurring due to delayed project completion resulting from a peril insured by the Builder's Risk policy. Soft Costs are generally used to describe construction expenses not directly related to brick and mortar.

Soft Costs can include loss of earnings such as rental income resulting from the delay in completion of the project. Here are some examples of Soft Costs:

- Interest expense on money borrowed to finance construction or reconstruction
- Loan fees and other time charges necessitated by the negotiation of a new construction loan or changes to the existing loan
- Real estate and property taxes
- Fees for architects and engineers
- Insurance premiums for project coverage
- Other professional fees such legal and accounting

Description

The Soft Costs endorsement will be subject to some key exclusions that help define coverage and restrict it to losses ultimately resulting from an insured peril causing direct damage. The following exclusions are common:

- Improvements necessary to correct construction deficiencies
- Delay in opening caused by adverse weather (unless the adverse weather first caused a direct damage loss)
- Penalties for not completing the project on time
- Delay beyond the reasonable time it should have taken to reconstruct the project following the loss that caused the delay

Conditions/ Comments

When Soft Costs are included in coverage, the limit of coverage chosen must be the full value of all hard and soft costs of the project.

There are two important conditions for coverage to apply; First, the delay in completion must be the result of a direct loss due to an insured peril. The second condition is that the loss must be "quantifiable". The deductible is usually stated as a waiting period, similar to Profits Form coverage, which may be up to 72 hours. The indemnity period is typically 12 months, but 24 months or longer is available. The indemnity period applies even if the policy expires before the indemnity period, provided the loss occurred during the policy period.

Variability Checklist

The key is determining if Soft Costs Coverage is specifically declared as covered. If so, the questions below must be answered. Each insurer will have a different approach to Soft Costs.

- Included within the limit?
- Included in addition to the limit?
- Included as a sublimit?

Builders Risk Soft Costs Coverage

Availability in 2004	Total Insurers:	12
	Insurers Accepting Builders:	9
Note	Soft Costs Coverage is usually packaged into an All Perils Builders Risk policy. Not all insurers that offer Builders Risk will offer Soft Cost coverage to all builders or all projects.	

Property in Transit

Purpose/ Overview

All Risk Property Insurance will exclude or severely limit coverage for property while in transit from one location to another. Property in Transit will cover goods while in the course of transportation from the moment the property leaves the initial point of shipment until it is delivered to its destination. This includes property held temporarily (usually defined as 30 days or less) by shippers or receivers.

Description

The policy also covers losses caused by direct damage from perils not otherwise excluded. As with All Risks Property Insurance, this policy states a list of property and perils that are not covered. The next box displays a sampling of ***excluded*** property and perils:

Conditions/ Comments

Property not covered

- Money, securities, precious stones
- Shipment by mail or parcel post
- Waterborne shipments
- Property you accept while acting as a common or contract carrier, broker or freight forwarder

Perils not covered

- Improper preparation for shipment
- Inadequate packing
- Insecure stowage when not stowed by the carrier
- Unauthorized instructions to transfer the property to any person or place

Property in Transit is usually added to an All Risks Property policy or a Builders Risk policy and subject to a separate limit of coverage for an additional premium. A separate Transit policy can also be purchased if desired, but that would usually increase the minimum premium required by the insurer.

Property in Transit implies that there ***is no coverage for waterborne shipments*** as noted in the exclusions. If transportation over seas or oceans is necessary, a Marine Cargo policy will be required.

Variability Checklist

If coverage is attached to a Property policy, it is important to check the sublimit. Most policies offer some level of coverage, but usually very small limits. Transportation over water may be excluded or included. The Territory of Coverage is a key condition and will vary. Some coverage is for Canada only, some coverage is for Canada and the U.S.A. Finally, policies sometimes require a Locked Vehicle Warranty, which is an important constraint upon coverage.

Availability in 2004

Total Insurers:	81
Insurers Accepting Builders:	15

Property in Transit

This coverage is provided in a variety of ways: 1) as a "stand alone" policy offered by specialty and inland marine insurers; 2) packaged into the All Perils Property Policy and offered by most property insurers; and 3) provided as a sub-limit to the total limit of an All Perils Builders Risk Policy.

Note

Version No. 3 is most likely to be encountered by Builders. This keeps the availability of such coverage in line with the availability of All Perils Builders Risk Policies for builders.

Crime Insurance

Purpose/ Overview

A Crime Policy provides coverage for five key exposure areas – Employee Dishonesty, Loss Inside the Premises, Loss Outside the Premises, Money Orders and Counterfeit Paper Currency and Depositor's Forgery. This policy is known as a "Comprehensive Dishonesty, Destruction or Disappearance" policy, or "3-D" for short.

Description

Employee Dishonesty

Known as Insuring Agreement I, this section provides coverage when an employee steals money, securities or other property from you. There are two coverage options: Form A provides a blanket limit of coverage for all employees with a twelve month reporting period. Form B provides a limit of coverage per employee and is subject to a twenty-four month reporting period.

Loss Inside the Premises

Known as Insuring Agreement II, this covers loss of money and securities that disappear or are destroyed from within your premises. This is a broad form of coverage. Where other forms of insurance for money and securities only cover burglary or robbery, this form will cover theft and disappearance.

Loss Outside the Premises

This is identical to Loss Inside the Premises, but covers money and securities that are destroyed or disappear from outside your premises. It is Insuring Agreement III. A typical example is an employee that is robbed while on the way to make a deposit at the bank.

Money Orders and Counterfeit Paper Currency

This section will provide coverage when you have accepted fraudulent money orders or counterfeit currency in payment of your goods or services. It is Insuring Agreement IV.

Depositor's Forgery

Insuring Agreement V provides coverage when your cheques have been tampered with. It does not provide coverage when you accept a fraudulent cheque. For example, if you signed a cheque made out to a supplier and it was later tampered with so that the payee was altered or the amount of the cheque was altered, you would be covered for your loss.

Crime Insurance

Employee Dishonesty

The key benefit of this coverage is that you do not have to prove which employee committed the theft, only that an employee or combination of employees committed the act. Under Form A, the limit of coverage applies for the total amount of the loss, whereas the limit for Form B applies based upon the employee's position. Consider the following example:

Conditions/ Comments

- An employer discovers that $100,000 has been embezzled from the company. It is learned that the theft was an equal combination of three employees – a sales manager, controller and accounting clerk.
- If the employer was covered by Form A with a limit of $100,000, the entire loss will be covered subject to the policy conditions and deductible.
- If the employer was covered by Form B with a limit of $25,000 per position, only $75,000 of the loss would be covered. This is because each position has a limit of $25,000, yet each employee in the covered position stole more than $25,000.

The key is choosing the limits of coverage. Either form will provide adequate coverage if an appropriate limit of coverage is chosen. It is easier to determine limits using Form A than it is using Form B, but Form B has a longer reporting period.

Loss Inside the Premises

The key is that if the loss is due to disappearance, the proof required must be sufficient to show that a theft occurred, not simply an error in accounting.

Other Coverage

There are some other coverages that can be added to a Crime Policy, including electronic fraud, forgery of cheques received, credit card fraud and extortion.

All Crime Policies will offer the five insuring agreements. There is some variability in the policy wording, but coverage is generally consistent from insurer to insurer. Following is a quick check-list to consider:

Variability Checklist

- How many Insuring Agreements are offered?
- Check for Warranties
- Territory of Coverage
- Indemnity Period for Form A Employee Dishonesty
- Definition of Theft

Availability of Additional Coverages, such as:

- Credit Card Forgery
- Incoming Cheque Forgery
- Electronic Funds Transfer Forgery
- Extortion

Crime Insurance

Availability in 2004	Total Insurers:	40
	Insurers Accepting Builders:	14
Note	Crime Insurance is widely available at lower limits, for example Employee Dishonesty limits of $100,000 or less and other coverages at $50,000 or less. Often, these limits are packaged into an All Risks Property Policy or Multi-Peril Policy. For higher limits, the market is restricted to specialty insurers. There are far fewer of these insurers. Builders do not present a particularly hazardous exposure to crime insurers and therefore options are not as limited.	

Commercial General Liability Insurance

Purpose/ Overview	Also known in short as CGL or GL, this form of coverage indemnifies you when you are responsible to pay damages to another person or business resulting from your legal liability for causing property damage or bodily injury, including death, to that other person or business. Not only does it provide coverage for the damages you will have to pay to third parties, but it also provides coverage for your defence costs. A CGL policy will provide defence costs ***in addition*** to the limit of liability.
Description	■ For example, assume you have a $1,000,000 CGL policy. You are brought to court by a third party alleging you are responsible for $1,000,000 in damages to their property because of a fire you started with a welding torch. Assume also that you incur $125,000 in legal expenses defending yourself from this action. If you were found to be liable for the alleged damages, your insurer would pay the full $1,000,000 awarded by the court and the $125,000 in legal expenses to defend the action. It is important to note that your insurer has the right under your policy to manage your claim and your defence as it has an obvious interest in a fair, expedient and economical result.
Conditions/ Comments	There are many other coverage forms that are available by adding them to the CGL policy through the use of endorsements.
Variability Checklist	There are a number of key variables to review within a CGL policy. Here is a list of items to consider: Is there a General Aggregate Limit of Liability? What multiple of the Single Limit is the Aggregate Limit? Check extent of the Pollution Exclusion Is Contractual Liability included? If Contractual Liability is included, is it blanket or scheduled contracts only? Check for a Wrap-up Liability Exclusion Additional Coverages, such as: ■ Personal Injury Liability ■ Advertising Liability
Availability in 2004	Total Insurers: 80 Insurers Accepting Builders: 22

Contractual Liability

Purpose/ Overview	The basic CGL policy does not cover liability assumed in a contract, with the exception of elevators, lease agreements and sidetrack agreements. However, a contractor such as a builder signs contracts everyday, often assuming liabilities that would normally be another person's responsibility. This is assumed "Contractual Liability".
Description	For this reason, Contractual Liability is a coverage that should be endorsed onto your policy. It will provide coverage for liabilities you assume when entering into a contract with another party. As this is still part of the CGL policy, the damages that create your liability must still be property damage or bodily injury to a third party. ▪ When signing a contract with the developer of a subdivision, you may be asked to accept the liability created by any subcontractors you hire to do a portion of the work. Under normal civil law, you are not liable for the acts of independent contractors. However, by virtue of the contract you sign with the owner, you are now liable for the acts of your subcontractors. You need contractual liability to cover this situation.
Conditions/ Comments	If the coverage is not provided as "Blanket Contractual" it most likely means the builder will have to schedule all of its contracts with the insurer. This requirement allows insurers to read all contracts and make underwriting decisions regarding corresponding coverage. This is a key condition and builders should ensure Blanket Contractual coverage is provided in order to reduce the administrative burden and margin for error within their policies.
Variability Checklist	Standard coverage is provided only for Insured Contracts as defined in the policy, usually property leases, elevator contracts and sidetrack agreements. Other options available are Scheduled Contracts in which specific agreements are scheduled with the insurer to obtain coverage. The final variable is Blanket Contractual, which usually provides coverage for all contracts entered into by the Insured. It is important to note that since this form is attached to a CGL policy, coverage is for bodily injury and property damage arising from said contractual liability, not pure financial loss or breach of contract suits.
Availability in 2004	Total Insurers: 80 Insurers Accepting Builders: 15

Tenants Legal Liability

Purpose/ Overview

A key exclusion in a CGL policy is that it will not cover damage you cause to another person's property while that property is in your "care, custody or control". When you lease space for your business, you have care, custody and control of the leased premises.

However, those premises are owned by somebody else – the building owner. Therefore, any property damage for which you are liable while occupying that space is not covered by the CGL policy. By adding Tenants Legal Liability endorsement to the policy, you are given coverage for leased premises in your care custody and control.

Description

- Assume you rent office space in a ten-storey commercial office building. Improper wiring of your computer system results in a fire. The fire causes damage to the part of the building occupied by you. Your CGL policy will not cover this damage because the building was property in your care, custody and control at the time of the loss. Your Tenants Legal Liability endorsement will respond to provide the coverage you need and protect your liability to the building owner.

Conditions/ Comments

Choosing a limit of coverage for Tenants Legal Liability can be difficult. You need to estimate the value of the space you occupy. A good rule of thumb is to purchase a limit equal to your CGL limit. However, in some cases that may not be enough. You should discuss this with your broker to determine the limit that is right for you.

Variability

The main variable is the extent of coverage. It will either be Broad Form or Named Perils. There may also be a sublimit for less than the limit of Commercial General Liability.

Availability in 2004

Total Insurers:	80
Insurers Accepting Builders:	22

Non-Owned Automobile Liability

Purpose/ Overview

Although this coverage can be provided by a separate policy, it is most commonly added by endorsement to a CGL policy. It exists because of a principal of law known as "Master and Servant". Under the common law, an employer is responsible for the negligent or careless acts of its employees, even if the employees have exceeded their authority or disobeyed direct orders of the employer.

This theory of law extends to automobiles as well. When your employee uses his or her own vehicle for your business and causes property damage or bodily injury to a third party, you may be held liable.

Description

However, your CGL policy does not cover liability arising from licensed automobiles and automobiles used off premises. Non-Owned Automobile Liability is therefore designed to protect your liability for losses caused by employees while using non-owned vehicles in connection with your business. You should always purchase a limit that is equal to your limit of CGL coverage.

Conditions/ Comments

Non-Owned Automobile will not provide coverage for physical damage to the non-owned automobile itself as that is property in your care, custody or control. For example, a rented automobile is a non-owned automobile, but the rental company is transferring responsibility for damage to the vehicle to you, the renter. It is important to add Endorsement No. 94 – Legal Liability for Damage to Non-Owned Automobiles to the policy. This will cover you for damage caused to the non-owned automobile while in your care, custody or control.

This form of coverage is provincially regulated. All non-owned automobile policies in a given province have a no variance in coverage form. There are some slight differences from province to province.

Variability Checklist

The key variable for the buyer of this policy is the limit of coverage and the deductible. The limit should be sufficient to cover a total loss to the most expensive hired auto the insured may have control and custody of during the year. The deductible should be similar to the deductible the insured carries for its owned automobiles.

Be mindful of policies that include endorsements restricting what type of non-owned automobiles will be covered by the policy.

Availability in 2004

Total Insurers: 63

Insurers Accepting Builders: 22

Note

Normally, any form of automobile insurance is available to all classes of business in Canada. As non-owned automobile insurance is normally packaged into a CGL policy, and very few insurers provide "stand-alone" non-owned automobile policies, the availability of this coverage for builders is equal to the availability of CGL.

Employers Liability Insurance

Purpose/ Overview	In all jurisdictions in Canada you are required to purchase Workers Compensation insurance from a provincially-owned corporation. In Ontario for example, the corporation is known as the WSIB – Workplace Safety and Insurance Board. It is designed to cover your liability for injury your employees incur while working for you. This is a legislated form of government insurance that you must buy. There are some employees in some jurisdictions that are exempt from Workers Compensation legislation, for example office workers in Ontario. If you have not purchased workers compensation coverage for these employees, you have no protection in the event they incur bodily injuries or death while engaged in your business. For this reason, you need Employers Liability coverage.
Description	Employers Liability provides coverage for your liability towards all employees that are not otherwise covered by workers compensation, or who may be exempt from workers compensation laws or have the ability to opt out of the provincial program at the time of a loss.
Conditions/ Comments	Even if you carry Workers Compensation for all employees, it is wise to purchase this coverage as it will act as a contingent coverage at the very minimum. Most insurers charge a very small premium or no premium at all.
Variability Checklist	Some forms provide only "Contingent Employers Liability" while others offer complete Employers Liability. All policies will exclude Employers Liability for employees in the U.S.A.
Availability in 2004	Total Insurers: 80 Insurers Accepting Builders: 19
Note	This coverage is normally packaged into a CGL policy and therefore its availability to builders is proportional to the availability of CGL.

Owners and Contractors Protective Liability (OCPL)

This form of coverage can be purchased as a stand alone policy, or added to a CGL policy by endorsement. When it is added to a CGL policy, it is provided on an annual basis. When arranged as a stand alone policy, it is usually providing coverage for a specific project.

Purpose/ Overview	The purpose of Owners and Contractors Protective Liability is to ensure the availability of project-specific, unimpaired insurance to protect against certain risks. Coverage applies only to the owner's liability from operations performed by a contractor and the owner's acts in connection with the general supervision of the work. The policy does not cover the owner's sole negligence for activities in connection with the project. The owner would rely on its own CGL policy for that coverage.
Description	Owner's and Contractor's Protective Liability will provide a policy for a specifically-named project. All losses assigning liability to the owner resulting from operations of the contractors will be covered by that policy. This ensures that there is dedicated coverage limits for this project, protecting the owner's CGL limits and claims history. The cost of the policy is usually transferred to the contractor, which in turn builds it into the project cost.
Conditions/ Comments	A builder may hire many contractors to perform work on its behalf. Although the owner has its own CGL policy, claims assigning liability to the owner due to the operations of contractors may either erode the aggregate limit of the CGL coverage, or simply affect the claims performance of the CGL policy resulting in higher premium costs. As a builder, you may think, "why should my operating costs be increased or my insurance reduced due to the negligence of others?"
Variability Checklist	The key variable is whether or not coverage is subject to a sublimit within the policy. Otherwise, forms are generally consistent from insurer to insurer when endorsed to a CGL policy.
Availability in 2004	Total Insurers: 8 Insurers Accepting Builders: 8

Excess Liability Coverage

Purpose/ Overview

It is prudent to ensure your business has adequate limits of Commercial General Liability insurance. In consultation with your broker, you may decide that you require a $10,000,000 limit of liability to properly protect your business from loss. For reasons such as risk tolerance, capacity to accept risk and cost/ accessibility to reinsurance, many insurers may not be willing or able to provide more than $2,000,000 or $5,000,000 of limits.

Description

Excess Liability insurance will provide the higher limits of coverage you require. The term "excess" simply means higher limits – it does not increase your scope of coverage. All of the conditions and exclusions that exist in your CGL policy will also exist in your excess policy. This is known as "follow form" protection – the form of the excess policy follows the form of the CGL or "underlying" policies.

The Excess policy does not "drop down". It is written on the basis that you have a certain amount of "underlying coverage". For example, if you have an excess policy that notes you have an underlying CGL limit of $2,000,000, your excess policy will only respond when the $2,000,000 limit has been exhausted. For example:

Conditions/ Comments

- Assume you have a $2,000,000 CGL policy and an $8,000,000 excess policy. The excess policy requires that you maintain $2,000,000 CGL. If you reduced your CGL limit to $1,000,000 without the agreement of your excess policy, you do not have $8,000,000 excess of $1,000,000, you still have $8,000,000 excess of $2,000,000. If you have a loss large enough to claim against your excess policy, you will have to cover the difference between your $1,000,000 CGL limit and your $2,000,000 underlying insurance requirement.

Variability Checklist

An excess policy can be written in excess of most CGL and Automobile Liability forms, including Non-Owned Automobile Liability, Contractual Liability, Employers Liability and Workers Compensation.

The form itself is fairly consistent. However, since the form follows the coverage offered by the underlying policy, it does vary in accordance with the said underlying policy. Each insurer will add its own series of restricting endorsements which further vary the coverage. The policy should explicitly provide the Excess Non-Owned Automobile forms for each province. Insurers will vary in their ability to provide excess coverage over U.S.A. and international policies.

Availability in 2004

Total Insurers:	80
Insurers Accepting Builders:	20

Note

The key to availability for Excess Liability is the limit of coverage. Every insurer will have its own specific capacity to offer excess limits. Most insurers can offer up to $10,000,000 in limits. Other insurers can offer as high as $25,000,000 or even $50,000,000 in rare cases. If you determine your business requires total liability limits of $25,000,000 or $50,000,000 you will most likely need several insurers providing several Excess policies to reach that limit.

Umbrella Liability Policy

Purpose/ Overview	An Umbrella policy is very similar to an Excess policy. It provides higher limits of coverage in excess of the underlying limits. The key to an Umbrella policy is that it will drop down to cover a reduction in underlying limits or even a loss that is not otherwise covered by an underlying policy.
Description	An Umbrella Liability policy is very broad and is usually defined by its exclusions. Every Umbrella policy is different. Some may exclude only a few forms of liability, where others may exclude many forms. Be sure to ask your broker to explain all of the exclusions in your Umbrella Liability policy and be sure you understand.
Conditions/ Comments	It is very important that you provide your broker with a complete and accurate description of your business to ensure your Umbrella policy does not contain any exclusion that eliminates needed coverage.
Variability Checklist	An Umbrella policy varies in that it comes in two forms – "single column" and "dual column" coverage. The singe column policy is similar to Excess Liability Coverage in that it follows the form of the underlying policies, but it may also drop down. The dual column approach separates coverage into "Follow Form Excess Liability" in column A and "Drop Down Coverage" in column B. Although dual column coverage appears to be more comprehensive, be mindful of the exclusions added to the policy which may restrict the scope of drop down coverage available. Regardless of the approach, all policies will include an annual aggregate limit of liability.
Availability in 2004	Total Insurers: 80 Insurers Accepting Builders: 18
Note	The key to availability for Umbrella Liability is the limit of coverage. Every insurer will have its own specific capacity to offer excess limits. Most insurers can offer only up to $10,000,000 in limits. Other insurers can offer as high as $25,000,000 or even $50,000,000 in rare cases. If you determine your business requires total liability limits of $25,000,000 or $50,000,000 you will most likely need several insurers providing several Excess policies to reach that limit.

Wrap-up General Liability Coverage

Wrap-up is project-specific general liability covering all participants in the project, including the owner, contractor, subcontractor, manager, consultant and architects & engineers, regardless of the ***number*** of participants.

Purpose/ Overview

It is broad, uniform coverage dedicated solely to the specific project with a policy period that is equal to the duration of construction. The language defining "Named Insured" is very broad to ensure coverage for every participant without specifically naming each one.
A wrap-up policy is purchased by an owner because it provides uniform coverage to all participants. It ensures all participants are covered to the same limit of coverage. Because it is project-specific, it also ensures that losses occurring at other projects do not erode the limit of coverage available at the specified project. Take this example:

- As a builder, you may have several subcontractors working at your site. You may want all subcontractors to carry $5,000,000 of liability coverage. However, each will have a different limit, some conforming to your requirements and some not. In addition, even if a contractor has $5,000,000 coverage, you cannot be assured that it has not caused a loss at another project site that will erode that $5,000,000 and leave less coverage available at your site.

- By using a wrap-up policy, you can ensure all your contractors/subcontractors have $5,000,000 of coverage and that coverage cannot be eroded by losses caused at other sites. In addition, you no longer have the administrative burden of collecting and verifying certificates of insurance from your contractors/subcontractors since you now know that they are covered by the wrap-up policy.

Decscription

An added benefit of a wrap-up policy is that it will provide an extension period for losses resulting from the completed operations of contractors/subcontractors. A wrap-up will usually provide an additional period of 24 months after the expiration of the policy to cover "completed operations" losses occurring during that time.

As site owner, the key benefit is that you do not have to worry about whether or not your contractors/subcontractors continue to carry insurance, at the required limit, after the job has been completed. In addition, "completed operations" coverage is not encumbered by the aggregate limit applying to the contractors'/subcontractors' own policies, although it is subject to the wrap-up policy aggregate. The wrap-up policy eliminates several insurance problems surrounding a construction project, such as:

- Difference in wordings
- Uninsured participants
- Mid-project renewals
- Cancelled policies
- Mid-project changes
- Varying limits of coverage
- Multiple deductibles
- Expired policies
- Excessive lawsuits
- Collection of certificates

Wrap-up General Liability Coverage

Choosing a limit must be done carefully. The builder has to consider the total number of participants on the project, the length of the project and type of work being done. A limit that appears very high may ultimately be insufficient. Think big!

Conditions/ Comments

Most likely the Wrap-up will be equally as comprehensive or more comprehensive than your CGL policy. However, there is no guarantee. It is important when being covered by a wrap-up policy to ensure your CGL policy does not have a Wrap-up Projects Exclusion.

Check your CGL policy to ensure there are no wrap-up exclusions. There are several insurers now introducing wrap-up exclusions to CGL policies issued to contractors, including builders.

Variability Checklist

At first glance, this appears okay as the wrap-up will cover you for the specific project. However, there are gaps created by the wrap-up exclusion and it is therefore not recommended.

Availability in 2004

Total Insurers: 25
Insurers Accepting Builders: 9

Contractors Professional Liability

Purpose/ Overview

Also referred to as errors and omissions (E&O) coverage, professional liability insurance protects against damages from professional services performed by contractors such as construction management and design-build. As a builder, you may have these exposures to consider.

Description

Coverage is provided on a Claims-Made form and is subject to many exclusions that define its scope to indemnify you for your legal liability for damages resulting from an actual or alleged negligent act, error or omission. Unlike a CGL policy, the defence costs of professional liability are included in the policy limit. It is therefore very important to choose your limit wisely. Consult with your broker.

A Contractors' Professional Liability policy can be purchased on an annual basis to cover all projects the builder works on during the year, or it can be purchased on a project-specific basis. The benefit of a project-specific policy is that the limits are dedicated to actual project and cannot be eroded by losses occurring at other projects. The advantage of an annual policy is that all operations are covered; it is generally more cost effective and provides more options when project-specific coverage is needed due to a contractual obligation.

Typically, a builder will purchase an annual policy to cover its basic operations. For certain key projects, depending upon the size, scope or contractual requirements, an additional project-specific policy will be purchased to allocate limits specifically for that project, or increase the available limits and add additional insureds.

Conditions/ Comments

A builder faces professional liability exposures for a variety of different aspects of its work, some of which are listed here:

- Hiring staff architects or engineers for design work
- Hiring design firms as consultants or using them for design-build projects and assuming responsibility for their work
- Providing construction management services
- Performing construction inspection services for the work of other contractors
- Loaning employees for a fee
- Advising on project financing

Homebuilding is generally a design-build delivery system and therefore this coverage is very important to builders.

Variability Checklist

All policies are worded slightly differently, but the resulting coverage scope is actually quite similar. All policies have extensive exclusions, which are necessary to carve out the exact form of liability provided. The buyer should read and understand all exclusions with the help of its broker.

Availability in 2004

Total Insurers: 8
Insurers Accepting Builders: 8

Note

Single project policies are in very limited supply with as little as one or two insurers in any given jurisdiction.

Contractors Pollution Liability (CPL)

Purpose/ Overview

A special pollution liability policy is required because most CGL policies either exclude pollution liability completely, known as the "absolute exclusion" or provide very limited coverage that would include "hostile fire" or "sudden and accidental" losses. A hostile fire is a fire that escapes from its intended containment area. A sudden and accident loss must be discovered within 120 days of its occurrence and reported to insurers within 120 days of its discovery. Although this seems like a long time, it passes very quickly.

Description

This policy will provide defence and indemnity coverage for bodily injury, property damage and environmental clean-up costs for pollution conditions arising from the builder's operations. The policy will respond to sudden and gradual pollution events as well as cleanup costs on and off the worksite.

The policy can be purchased on an annual blanket basis or a project-specific basis and may be issued on an occurrence or claims-made form.

Conditions/ Comments

Some operations make it obvious that a CPL policy should be procured. A builder performing environmental remediation work is a good example. Consider the many other environmental exposures on construction projects:

- Construction debris containing hazardous materials (paint, tar, etc...)
- Contaminants from historical use of the property or neighbouring premises
- Inadequate containment and loading/ unloading areas
- Soil/ groundwater contamination
- Lead, asbestos, PCB's and radioactive contamination
- Midnight dumping on vacant land parcels
- Sick building syndrome (carbon monoxide or bacterial air releasing from HVAC systems)
- Disposal of hazardous waste generated on site
- Air emissions causing offensive odours
- Spills of chemicals and fuels
- Lubricant oils and other fluids from field equipment

Variability Checklist

The key variability is coverage offered on an Occurrence Form or a Claims Made Form. The latter is traditional, but the former is becoming more available. If your policy is a Claims Made Form, check the extent of the Retroactive Date.

Availability in 2004

Total Insurers:	10
Insurers Accepting Builders:	10

Note

At least two insurers have introduced combined Contractors Pollution, Contractors Professional and CGL policies. The key issue with this package is that coverage for each insuring section is not necessarily as broad as it would be if three separate policies were purchased. For example, the CGL may not include non-owned automobile or employer's liability. In addition, the CGL may be issued on a Claims-Made basis. Be sure to understand the full terms and conditions of your policy before purchasing coverage.

Special Construction Insurance Coverage

Delayed Completion/ Force Majeure/ Combined/ Inherent Defects

Purpose/ Overview

As described earlier, Soft Costs coverage only indemnifies where the delay was the result of a direct loss caused by an insured peril. As referenced in the Phase I Risk Table, a project is nonetheless exposed to delay resulting from non-physical and financial perils.

For years, these types of perils were considered uninsurable business risks. There are new coverage forms designed to address some of the non-physical risks and financial risks exposed by builders.

Availability

These forms are currently subject to ***very limited*** availability. There are few insurers that will offer coverage and then only in rare circumstances. As the insurance market continues to stabilize, we expect these forms will become available. There is also the option of looking to other markets, namely London, Barbados and Bermuda to arrange coverage.

1. Delayed Completion and Liquidated Damages

Delayed Completion is for Owners and Liquidated Damages is for Contractors.

Purpose/ Overview

Each of these forms of coverage provide protection against financial loss from a delay in the project completion resulting from ***specified causes***, such as failure of a participant to perform within the construction schedule.

In the case of a builder, where you are the owner and the contractor, coverage for your own failure to meet project schedule is not available. However, protection against subcontractors is possible.

Conditions/ Comments

The Conditions include an acceptable engineering review of the project by an independent engineering firm and contract review by an independent legal firm. The premium will be expensive, ranging from 3 per cent to 7 per cent of the insurance limits. The deductible will be a waiting period in the range of 45 to 90 days ***after*** the contract completion date, as the whole purpose of coverage is to protect against costs incurred by delayed completion.

2. Force Majeure Insurance

Purpose/ Overview

This policy, issued on behalf of the owner, will protect the owner against loss resulting from delayed completion due to causes beyond the control of the owner. Typical examples of such losses are:

- Destruction or damage occurring off-site that effects construction.
- Strikes and labour disputes.
- Changes to building safety codes or emissions standards occurring during the contract period.
- Any other cause that is beyond the control of all participants such as adverse weather conditions and foreign trade embargo.

In other words, this coverage will only apply for an ***excusable delay***. Where an excusable delay occurs, the owner has no recourse against the builder and requires protection in some other form, namely this policy.

Conditions/ Comments

The Conditions include an acceptable engineering review of the project by an independent engineering firm and contract review by an independent legal firm. The premium will be expensive, ranging from 3 per cent to 7 per cent of the insurance limits. The deductible will be a waiting period in the range of 45 to 90 days after the contract completion date.

3. Combined Delayed Completion/ Force Majeure

Purpose/ Overview

Determining whether the cause of a delay was excusable or inexcusable can sometimes be a difficult job resulting in disputes between owners and builders. It is a key point because the builder will not be liable for excusable delays. A dispute may take a long time to settle, during which time the owner must service the construction debt, which becomes more and more costly as the project is delayed.

The owner can relieve itself of this worry through the purchase of a combined policy. Under such an arrangement, the insurer agrees to indemnify the owner for losses caused by specified delays and then assumes subrogation rights against the builder alleged to be the cause of the delay under the liquidated damages clause of the builder.

This allows the owner to carry on with the progress of the project without the need to first settle the dispute and increase the delay. If it is ultimately determined that the delay was inexcusable, the insurer will recover the liquidated damages from the builder.

Conditions/ Comments

The Conditions include an acceptable engineering review of the project by an independent engineering firm and contract review by an independent legal firm. The premium will be expensive, ranging from 3 per cent to 7 per cent of the insurance limits. The deductible will be a waiting period in the range of 45 to 90 days after the contract completion date.

4. Inherent Defects Insurance (IDI)

Purpose/ Overview

Construction defect litigation is a growing concern in Canada following the multitude of high award mass torts in the United States. Every province has a statutory period in which a builder warrants that its product is constructed in a workmanlike manner, free from material defects, fit for habitation, constructed in accordance with the Building Code, and also free of major structural defects.

In Ontario, for example, the warranty applies against major structural defects for seven years from the purchase of the home and for most other defects for one year from the purchase of the home. Most builders, contractors and developers assume this exposure as the necessary risk of doing business.

Inherent Defects Insurance (IDI) will transfer this risk to an insurer. The policy will respond to losses resulting from defects by faulty design, engineering or workmanship. Coverage is applicable if the faulty design, engineering or workmanship causes physical damage, collapse or the threat of collapse. The policy applies to structural works, defined as all internal and external load-bearing members or material essential to building stability or strength. This could include foundations, columns, walls, floors, beams and roofs.

Conditions/ Comments

IDI is first party insurance that responds to a loss no matter which party was at fault for the defect. The insurer will maintain rights of subrogation against a party whose work was the cause of the defect, with the exception of the Named Insured.

Unfortunately, at present in 2004, this coverage is mostly unavailable to the average builder. However, market conditions are changing. We recommend you raise the issue with your broker and survey the market on a regular basis.

5. Contractors/ Subcontractors Default Insurance

Purpose/ Overview

This coverage is to protect the owner/ builder against the default of performance by subcontractors and suppliers for specified insured contracts and purchase orders.

A key benefit is that the actual default triggers coverage. The insurer will not question the legality of the fault, leaving it up to the courts to decide.

The policy will cover the cost of completing the subcontractor's or supplier's obligations, correcting defective or non-conforming work, legal and professional expenses caused by the default and soft costs including liquidated damages, accelerations and extended overheads.

Conditions/ Comments

Limits are per occurrence and in the aggregate. There is a single deductible, aggregate deductible and co-payment clause.

The policy is conditional upon the creditworthiness and work performance history of subcontractors or suppliers. There must be a default in order to trigger coverage.

The policy must be purchased before a default. In other words, previously or existing defaulted subcontractors and suppliers are not covered.

Another key condition is that the Insured cannot contractually pass on the responsibility for paying deductibles and co-payments. This is important because the whole purpose of the deductibles and co-payments are to ensure the Insured has "skin in the game" and will take all actions necessary to prevent default and prevent losses.

Automobile Insurance

Purpose/ Overview

Available in both the competitive and government-owned markets in Canada. Although the systems of automobile insurance vary from province to province, all automobile insurance protects against three basic segments of risk – Liability to third parties for bodily injury and property damage, accident and life insurance for the automobile occupants and physical damage to the insured vehicle.

Description

Ontario

The Ontario system is a threshold no-fault system. All bodily injury losses in Ontario are adjusted and settled by a person's own insurer regardless of fault unless the injuries surpass a statutory standard of serious and permanent impairment or death, in which case the injured party can pursue damages under tort law. Third party property damages continue to be settled under a tort system provided the damaged property is not another automobile. As part of the overall no-fault program, all physical damage losses in Ontario are paid by direct compensation from the insurer of the damaged vehicle regardless of fault. The claimant will be responsible for a deductible, however, in the proportion of his or her fault in the accident.

Atlantic Canada, Alberta and the Territories

All provinces and territories in this category operate tort automobile insurance systems in varying degrees. Insurance policies in these jurisdictions are divided primarily into three sections: A) Third Party Liability, B) Accident Benefits and C) Physical Damage. All third party liability loss, whether bodily injury or property damage, are settled under tort law principals. The same applies for physical damage. The loss in any accident is fully covered by the at-fault automobile's insurer through a combination of Third Party Liability for the not at-fault vehicle and Physical Damage for the at-fault vehicle.

British Columbia, Saskatchewan and Manitoba

Each of these provinces operates government-owned no-fault automobile insurance systems. There is one insurer providing the provincial compulsory coverage - in B.C., the Insurance Corporation of British Columbia (ICBC); in Saskatchewan, Saskatchewan General Insurance (SGI); and in Manitoba, Manitoba Public Insurance Corporation (MPIC). All third party losses and physical damage losses are settled through the government insurer on a no-fault basis.

Quebec

In Quebec, the system is completely no-fault, but split between private insurers and the Quebec government. The Society de l'Assurance Automobile du Quebec provides all bodily injury coverage for residents of the province. There is no threshold system and no private company program for accident benefits as there is in Ontario. Physical damage losses are owned by private insurers and adjusted on a direct compensation, no-fault program.

Third party property damage losses are covered by private insurers on a tort basis provided the damaged property is not another automobile.

Automobile Insurance

There are many conditions applicable to automobile insurance. The most important condition is to declare all aspects of operations, all prior claims, all vehicles and all drivers at the time of application. Holding back any information regarding automobile insurance can result in reduced coverage, cancelled policies and inability to acquire affordable coverage in the future. Worst of all, it could void any claims.

Conditions/ Comments

Note that the term "no-fault" applies as an opposite term to the tort system, preventing recovery from responsible third parties. Insureds are still assessed fault in each accident, pay a deductible in proportion to their degree of fault and will have their insurance record adversely affected in proportion to their degree and frequency of fault.

Automobile policies are provincially regulated therefore all insurers in a given Province offer the identical coverage form. There are some issues to look for nonetheless, such as:

Variability Checklist

- Endorsements that may restrict coverage
- Limits offered for endorsements vary from insurer to insurer
- Forms for different Provinces will vary greatly, depending upon system of insurance particular to that Province
- Minimum deductibles
- Underwriting requirements

Availability in 2004

Total Insurers:	63 Private Sector; 4 Public Sector
Insurers Accepting Builders:	18

Note

The problem affecting availability is the refusal of insurers to offer automobile insurance on a "mono-line" basis, choosing to provide the coverage only if another line of coverage, such as GL, is purchased. This reduces the availability for contractors considerably because the risk appetites of insurers differ between the CGL and Automobile classes.

Surety Bonds

*Bonds are **NOT** Insurance Coverage*

Purpose/ Overview	The purpose of a bond is to guarantee to the owner of a project that the contractor performing the work is capable of completing the work as promised in its bid. Bonds are not insurance, but they are provided by insurance companies because insurers have the necessary financial resources and understanding of risk.
Description	A bond is a three-party contract where the Surety (the insurance company providing the guarantee) guarantees to the Principal (the project owner) that the Obligee (the contractor) is capable of completing the work. If at some point during construction the contractor is unable to complete the work or remain in compliance with the contract terms, the Principal can call upon the Surety to arrange for completion of the job. This particular scenario requires a Performance Bond. Without this bonding facility, it would be almost impossible to carry out a construction project as the risk of loss to the owner would be too great.
Conditions/ Comments	The key condition for a contractor to qualify for bonding is its financial condition. Only well-capitalized, profitable contractors working within their financial resources will qualify for a bond. Since bonds are not insurance, if the Surety has to take over completion of a project, it will expect reimbursement for its costs from the contractor and has a legal right of recourse. Often however the contractor has only debt and the surety will take a loss. For this reason, Sureties will also require Personal Indemnities from the principals of the bonded contractor. This is an agreement whereby the principals pledge their own personal assets in the event the Surety must complete a project. Although the value of that pledge may pale in comparison to the size of the loss, the intent is to ensure the principals have a vested interest in operating the company in a financially sound manner and do not overextend themselves to work beyond their capacity to complete. Sureties will absolutely recover against Personal Indemnities, so this is a very serious condition that the principals must carefully consider. For a builder, performance bonds are not usually necessary as the builder is the owner. However, governments and government corporations are increasingly requiring builders to provide bonds with the people of the province as Principal in order to guarantee adequate financial resources to conform with the provinces respective new home warranty programs.
Variability Checklist	Bonds are generally similar from Surety to Surety as most use standardized documents. There may be variability when the form is dictated by the Obligee (owner) of a site. In addition, financial requirements and conditions vary from Surety to Surety with respect to the requirement of personal indemnities and the amount of those indemnities, plus the requirement of a spousal indemnity.
Availability in 2004	Total Insurers: 43 Insurers Accepting Builders: 17
Availability	There are about 20 highly active surety providers in Canada and another 23 that operate on a limited basis. Each has its own requirements and risk appetite. In general, if a company has sound financials, equity, capital, profit and a good business plan, it will find bonding readily accessible.

Directors and Officers Liability

Purpose/ Overview	Provides legal liability coverage for individual directors and officers of a corporation. The policy will also cover the liability of the corporation for indemnifying the directors and officers.	
Description	The policy covers against "Wrongful Acts". This is generally any type of act by a director or officer, in the regular course of their duty as director or officer that causes financial harm to parties with an interest in the corporation including shareholders, employees, suppliers, investors and the general public.	
Conditions/ Comments	Legislation in all Canadian provinces imposes individual liability upon directors and officers for a variety of different reasons including employment practices and fiduciary responsibility for pension plans. Any person serving as a director or officer of a corporation should carry this coverage.	
Variability Checklist	An expert broker is needed to properly address a given builders specific needs with respect to Directors and Officers Liability Insurance Coverage.	
Availability in 2004	Total Insurers:	17
	Insurers Accepting Builders:	10

Risk Allocation and Insurability

Knowing all of the different insurance forms available is important. However, it is difficult to determine which parties should purchase which policies. For example, who should purchase a Wrap-up policy? Who should purchase a Builders Risk policy?

The following Risk Allocation and Insurability Table is a general mapping of which participants in a project should purchase which insurance policies. It is a general description only. Different contractual situations make it necessary to be flexible when determining who should buy which coverage.

Risk Allocation and Insurability Table

Risks	Owner	Consultant	Contractor	Subcontractor	Wrap-up Covers
Injury to Contractors Employees (Health & Safety Risk) (Site Security and Safety Risk)	General Liability or Protective Liability	General Liability or Professional Liability	Workers Compensation	General Liability	Owner Consultant Subcontractor
Injury to Subcontractors Employees (Health & Safety Risk) (Site Security and Safety Risk)	General Liability or Protective Liability	General Liability or Professional Liability	General Liability	Workers Compensation	Owner Consultant Contractor
Injury to the General Public (Third Party Bodily Injury Risk) (Site Security and Safety Risk)	General Liability or Protective Liability	General Liability or Professional Liability	General Liability	General Liability	All Parties
Physical Damage to Project During Construction (Construction Accidents Risk) (Vandalism/ Terrorism Risk)	Builders Risk	General Liability or Professional Liability	Builders Risk	Builders Risk	Not Applicable
Physical Damage to Project After Construction (Products/ Service Failure Risk)	Property Policy	Professional Liability	General Liability – Completed Operations	General Liability – Completed Operations	Contractor Subcontractor (Completed Operations)
Physical Damage to Adjacent Property (Third Party Property Damage Risk)	General Liability	Professional Liability	General Liability	General Liability	Owner Contractor Subcontractor
Physical Damage Causing Consequential Loss (Business Interruption Risk)	Builders Risk Soft Costs	Professional Liability	Builders Risk Soft Costs	Builders Risk Soft Costs	Not Applicable
Physical Damage to Contractors Equipment (Construction Accidents Risk)	Not Typically Insured	Not Typically Insured	Contractors Equipment Floater	Contractors Equipment Floater	Not Applicable
Employee/ Third Party Fraud Risk	3D Crime Policy	3D Crime Policy	3D Crime Policy	3D Crime Policy	Not Applicable

Risks	Owner	Consultant	Contractor	Subcontractor	Wrap-up Covers
Damages Caused by Excusable Delay (Business Interruption Risk) (Change in Ground Conditions Risk) (Natural Hazards Risk) (Labour/ Union Relations Risk) (Vandalism/ Terrorism Risk)	Force Majeure Policy	Not Necessary	Not Necessary	Not Necessary	Not Applicable
Damages Caused by Inexcusable Delay (Cost Overrun Risk) (Change in Ground Conditions Risk) (Human Resources Risk)	Delayed Completion Policy	Not Typically Necessary	Liquidated Damages Coverage	Not Typically Necessary	Not Applicable
Pollution Risk	Environmental Impairment Liability	Professional Liability including Pollution Liability Coverage	Contractors Pollution Liability	Contractors Pollution Liability	Does not Cover Pollution Losses
Contractor Performance Risk	Performance Bond Contractor as Obligee	Not Applicable	Performance Bond Subcontractor as Obligee	Not Applicable	Not Applicable
Material and Supply Risk (Supply Chain Risk)	Performance Bond Contractor as Obligee	Not Applicable	Performance Bond Subcontractor as Obligee	Not Applicable	Not Applicable
Credit (Default) Risk	Contractors Default Contractor as Debtor	Not Applicable	Contractors Default Subcontractor as Debtor	Not Applicable	Not Applicable
Products/ Service Failure Risk	Products/ Completed Operations	Products/ Completed Operations	Products/ Completed Operations	Products/ Completed Operations	Not Applicable
Estimation Risk	Performance Bond Contractor as Obligee + Construction Documents	Not Applicable	No Insurance re: Owner Performance Bond Subcontractor as Obligee + Construction Documents	No Insurance Available	Not Applicable

Risks	Owner	Consultant	Contractor	Subcontractor	Wrap-up Covers
Legal and Regulatory Risk	No Insurance Available	No Insurance Available	No Insurance Available	No Insurance Available	Not Applicable
Interest Rate Risk	No Insurance Available	No Insurance Available	No Insurance Available	No Insurance Available	Not Applicable
Project Allocation Risk	No Insurance Available	Professional Liability Policy	Contractors Professional Liability	Contractors Professional Liability	Not Applicable

Limit Determination

A key variability in construction insurance is the limit of coverage to be chosen at each site and for each type of insurance coverage purchased by a builder. To assist in this process, outlined below are some brief principles to follow in determining an accurate limit of coverage.

Limit of coverage will also contribute to the Total cost of risk. Where limits of coverage are insufficient, more risk is retained by the builder, increasing its cost of risk. An accurate selection of insurance limits will contribute to continued availability of insurance by conforming to policy conditions.

Limit Determination Procedure

Property Insurance

- Create an inventory of all property owned and leased
- Estimate the cost to replace all property based upon current replacement value
- Include an inflation factor to the end of the policy term
- Add up the estimated replacement value of all property
- The total is the minimum required limit of coverage

Builders Risk Insurance

- Refer to construction documents
- Determine total cost of project, including hard costs and soft costs
- Include an allocation for incorrect estimates
- Total construction value and allocations is appropriate limit of coverage

Contractors Equipment Floater

- Create an inventory of all equipment owned, leased or in the care of the builder
- Include all locations, sites and storage areas for all equipment
- Confirm terms of coverage for Replacement Cost (RC) and Actual Cash Value (ACV)
- Estimate current value of all equipment qualified for ACV
- Estimate current value of all equipment qualified for RC
- Total values of all ACV and RC qualified equipment is appropriate limit of coverage

Business Interruption Coverage

- Use Business Interruption worksheet
- Consult financial statement to complete the sheet or use accountant service
- Value indicated on the worksheet is the correct limit of coverage

Builders Risk Soft Cost Coverage

- Consult construction documents to determine soft costs
- Add soft costs to the value of hard cost construction for the largest single project of the year
- Ensure Builder's Risk limit of coverage includes soft costs
- Choose indemnity period based on these factors:
    - (v) Time necessary to reconstruct
    - (vi) Delay in reconstruction term
    - (vii) Investigations and settlements
    - (viii) Correction of any defects or errors uncovered by investigation

Property in Transit

- Consider the work involved in the project
- Review value of all products/ equipment to be transported to/ from the site
- Determine the largest single transportation during the course of the project
- Limit should at minimum reflect the largest single transportation

Commercial General Liability

- At a minimum, the limit should conform to contract specifications
- Use benchmark information from broker to establish norms for your business size and operation
- The average limits established by the analysis should be a guide only
- Always procure a limit that is as much as is available and affordable

Excess and Umbrella Liability

- Purchase sufficient limits to at least conform to contract specifications
- Obtain as high a limit as is available in the market and affordable

Wrap-up General Liability

- Consider the total number of project participants including all trades and consultants
- Consider the size and duration of the project
- Purchase a significant limit of coverage based on these facts
- Always buy a limit that is higher than you think is necessary

Contractors Professional Liability

- At a minimum, limit must meet any contractual obligations
- Should also be at least equal to your CGL limit
- Purchase as much as is available and affordable

Pollution Liability

- At a minimum, limit must meet any contractual obligations
- Should also be at least equal to your CGL limit
- Higher hazard work should require a higher limit of coverage

Specialty Coverages

- These coverages are often available in specified limits from the insurer
- Limit should also match the exposure as measured through proper analysis
- Obtain as much coverage as is affordable and available

Automobile Insurance

- Third Party Liability should match the limit of General Liability
- Excess Automobile Liability should match Excess or Umbrella Liability limits
- For all endorsements limiting physical damage, choose a limit sufficient to cover all operations
- For endorsements with varying limits, purchase the maximum available from the insurer

3

Phase 3: Non-Traditional Insurance

This section of the report considers and compares various non-traditional insurance vehicles as alternatives to traditional insurance solutions. All forms of non-traditional insurance are in fact self-insurance. In practice, the majority of self-insurance programs address the lower financial levels of risk, and traditional insurance is usually applied to high excess (or catastrophic) layers of risk.

The alternatives to traditional insurance considered can be categorized as single insured programs, group programs and captive programs:

Single Insured Programs	Group Programs	Captive Programs
Finite Risk	Reciprocal Insurance Exchange	Single Parent Captive
	Group Funded Deductible	Group Captive
		Rent-A-Captive
		Protected-Cell Captive

The fundamental difference between single insured programs and group programs is that group programs involve the sharing of risk among participating members.

The various forms of captives are the most popular method of facilitating non-traditional insurance and many of the issues discussed apply equally to the forms of risk financing; therefore, much of the discussion in this section refers to captives.

Finite Risk

Finite Risk

Definition

Finite risk is an insurance market concept that blends formal funding for self-insured risks with a limited element of risk transfer. Traditional insurance underwriters spread the losses of a few insureds over a much larger number of policyholders. In contrast, finite risk underwriters spread the losses of one insured over time.

The primary motivation for most insureds that have entered into finite programs is not risk transfer, rather it is smoothing of earnings or cash flow management. Finite risk works best for property or business interruption risks in situations where a severe loss is possible but not likely in any given year.

A traditional finite risk program offers a single aggregate limit over a multi-year period. The policy premium, usually payable in equal instalments over the multi-year period, will accumulate to the limit and thus the program is self funded by the insured. The premium, less the underwriter's fee and premium tax, is put into an interest-earning fund managed by the underwriter. Losses up to the policy limit are paid firstly out of the fund and then by the underwriter if the fund is not sufficient. At the end of the multi-year period, any balance remaining in the fund can be returned to the insured or conversely the program can be rolled forward.

Purpose/ Overview

The key advantage to a finite risk program is that self-insurance costs are stabilized over time and limited to the annual premium. If a large loss occurs early in the program, the underwriter will cover any shortfall in the fund. There is also the opportunity for significant return premium if losses are not triggered during the policy period. Although finite equates to self-funding, if it is combined with a sufficient excess layer of risk transfer the entire program may be accounted for as a traditional insurance policy.

Finite programs call for significant cash commitments; most programs placed in the market involve premiums of several million dollars. Not all of the cash paid by the insured will be retained to finance future losses. Finite risk underwriters will charge a fee to cover profit, expenses and a premium for the risk transfer element of the program – these costs average about 10 per cent of gross premium. In addition to the minimum premium, most finite underwriters are located in either the U.S. or Bermuda; this raises the possibility of an additional fronting fee.

There may also be an element of opportunity cost as interest credited to the fund by the underwriter will generally be less than the return that could otherwise be earned - typically insureds will be credited prime minus 1 per cent.

Finite risk is a form of self-insurance that involves a commercial insurer. Therefore it is important for an organization interested in finite risk to partner with an insurance broker that has the expertise to negotiate the terms & conditions as well as evaluate the costs and benefits of a finite program.

Next Steps

In practice there are very few finite risk programs in place within Canada. In the world of alternatives to traditional insurance, captives and reciprocals are much more common at least in the Canadian market. This is primarily a result of the significant cash flow commitment required (although some finite underwriters may be flexible on this issue).

Example

<table>
<tr><th colspan="2">Finite Risk</th></tr>
<tr><td>Background</td><td>We are not aware of any finite risk programs currently in place for Canadian builders. However, several programs have been in place in California since 2002. The motivating factor behind these programs was extremely high premiums. At the time these programs were created, certain builders were being quoted premiums that were in excess of 80 per cent of the policy limit being offered for traditional insurance.</td></tr>
<tr><td>Rationale</td><td>A finite program offered the builders the ability to provide evidence of insurance and therefore continue to operate. At the same time, in the event a builder had favourable claims experience during the policy term a finite program offered return premium. This offered the potential for reduced costs.</td></tr>
<tr><th colspan="2">Result</th></tr>
<tr><td colspan="2">The programs all had similar characteristics. In each case, the builder was required to "fully fund" the policy. In a fully funded program the insured pays a premium (or provides financial security usually in the form of a letter of credit) equal to the policy limit. In addition, the finite insurer charged a sufficient amount to cover state premium taxes and a profit margin. Most of these programs were executed for a limit of one or two million dollars.</td></tr>
</table>

Reciprocal Insurance Exchange

	Reciprocal Insurance Exchange
Definition	Reciprocals are licensed insurers. All provinces and territories have enabling legislation in place for reciprocals. Like conventional insurers that offer insurance to the public, the reciprocal will be monitored on a continual basis by the territorial Superintendent of Insurance. The reciprocal would conduct its business through an attorney-in-fact that acts as an agent of each subscriber within the program.
Purpose/ Overview	A reciprocal is an unincorporated group of organizations that contract with each other to spread the risks and losses inherent in their activities. If one member of the Reciprocal suffers a loss, all members contribute to the payment of that loss based on a pre-agreed formula. The members, typically referred to as subscribers, cover losses by paying some premium up front and agreeing to be assessed for additional premium if necessary.
Next Steps	The first step in establishing a reciprocal is identifying like-minded firms with similar operating exposures. There must be willingness from all parties to share risk, information and best practices towards risk management. A formal and detailed business plan will need to be developed and submitted to the Superintendent of Insurance for approval before a license is granted. A qualified consultant can assist a group in deciding which vehicle makes most sense in their particular circumstances. As a general observation, in Canada, reciprocals tend to be set up by not-for-profits (municipalities, universities, hospitals) and captives tend to be set up by for-profits.

Group Funded Deductible

	Group Funded Deductible
Definition	A group funded deductible program is very similar to a reciprocal or group captive with the exception that there is no licensed entity formed to hold the risk of the group.
Purpose/ Overview	The advantage of group deductible relative to other options is that start-up and operating costs are minimized. The decision to form a group funded deductible over a more formal entity (captive/ reciprocal) is usually the result of the relationship between the members. Group programs where members are required to buy insurance through the group are more likely to utilize a group fund than voluntary programs. It is the relationship between the members that binds the insureds. There is usually no requirement for a subscriber's agreement.
Next Steps	In Canada, most group funded programs have been formed by franchisors, professional associations (including trade associations) and religious groups (although there are examples of all of these types of groups forming captives). In some cases, the group fund is a separate incorporated entity but not a licensed insurer. Usually premium payments made by the members are held in trust. Funds can be managed by the program's insurance broker or by the association.

Example

Reciprocal/ Group Funded Deductible	
Background	Reciprocals are commonly used in Canada by not-for-profit organizations to share and fund self-insured risk. Some examples include the Canadian Universities Reciprocal Insurance Exchange (CURIE), the Ontario Municipal Insurance Exchange (OMEX) and the Health Insurance Reciprocal of Canada (HIROC). Group Funded Deductibles are commonly formed by Professional associations, franchise retailers and religious groups. In Quebec, members of a professional order, as defined by the Professional Code, may establish an insurance fund if authorized by the Minister of Finance and licensed by the Agence nationale d'encadrement du secteur financier. Once constituted, this insurance fund is the exclusive professional liability insurer for all members of the order. These programs are similar in nature to both reciprocals and group funds. One trade association in Quebec, involved in the residential construction industry made the decision during 2004 to pursue this option. The decision was made as a result of increasing premiums and a perceived lack of competition between insurance companies.
Rationale	Claims filed by the members are in aggregate actuarially predictable. Under a traditional insurance program an underwriter will charge for expected losses plus a risk margin, profit and administrative expenses. By removing the insurance company from expected losses, a Fonds d'assurance offered the association the ability to reduce the expected cost of insurance to its members.
Result	
It is anticipated that the program will be implemented by early 2005.	

Captive Programs

A captive insurer is a limited purpose, wholly owned subsidiary of an organization (or a group of organizations) usually not in the insurance business. The captive's primary function is insuring some or all of the exposures and risks of its parent or its parent's affiliates and other subsidiaries. Captives are legal entities, formed by one corporate parent or a number of similar corporate parents (for example, a trade association). They are generally domiciled in offshore (foreign) or onshore (domestic) locations that have established regulatory infrastructures to support the development of captives.

Captives are often viewed as the privilege of the large organization, an option available and viable only for the largest Canadian corporations. This is a misconception. In fact, there are a variety of captive configurations. The single parent captive is best suited to larger organizations ($500,000 of insurance premiums or greater), but there are also group captives and rent-a-captives available to mid-size ($250,000 of insurance premiums to $499,000 of insurance premiums) and small organizations (less than $250,000 of insurance premiums).

This method of opting out of the traditional insurance market should not be viewed as a short-term, quick fix for a hardened insurance market[1]. Forming or joining a captive requires a commitment of time. Ideally, a captive is not a shelter from the current pricing storm, but a long-term paradigm shift. Handled correctly, moving to a captive can provide both short and long-term benefits for your organization. Handled incorrectly, it can result in negative surprises, including unexpected taxes and other expenses.

The protracted soft insurance market[2] from 1986 until 2001 did not do much to encourage growth in the captive market, but neither did it cause captives to wither on the vine as had been predicted by some. Some captives were begun as an alternative to the last hard insurance market, but many organizations that formed captives found it beneficial to continue the programs.

Some of the first captives were single parent captives, formed by large international companies. The larger the company, the more statistically credible its own loss experience. With the exception of catastrophic losses, large companies have a fairly accurate picture of what their primary losses will be, and so do insurers. For them, insurance below a certain threshold is just trading dollars with a fee attached for the insurers' expenses and profits. Rather than continue paying the insurers to pay the losses, some large companies formed their own privately owned insurance subsidiaries to cover their first layer of risk.

This section provides an explanation of various captive configurations, domestic (onshore) and foreign (offshore) domiciles, captive management, tax implications, and a range of other issues to help determine if a captive is the right choice for your organization.

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[1] Insurance premiums and deductibles are increasing, and/ or coverage is more restrictive.

[2] Insurance premiums and deductibles are decreasing and/ or coverage is broader.

Benefits and Costs of Captives

Forming or joining a captive can be quite beneficial to an organization, but captives are not without their drawbacks. Any discussion of captives must, then, start with the reasons why, and why not, to consider this alternative.

Benefits

Cost Stabilization	Companies saw the cost of insurance in the commercial market increase significantly during 2001 through 2003. On the other hand, the long view looking back more than 15 years since the last hard insurance market reveals that premiums were dropping almost as precipitously then as they subsequently rose. The current hard-market cycle has brought insurance rates back up to early 90's levels. When an organization funds its own risks with a captive, those peaks and valleys can be smoothed and the overall cost should be less than in the commercial insurance market.
Cost Reduction	Premiums offered by commercial insurers theoretically include the cost of losses, the insurer's expenses and a margin for-profit. Expense ratios for commercial insurers tend to be in the range of 30 per cent to 40 per cent of premium. In contrast, the expense ratios for a captive tend to be much lower as low as 10 to 15 per cent or even less. In addition, insurers invest premium dollars before they are paid out as losses. With a captive, investment income is captured by the owner.
Coverage Availability	In a soft insurance market, coverage is cheap and plentiful. In a hard insurance market, some coverage is expensive and sometimes not available from commercial insurers at any price. Captive owners have the ability to determine what coverages the captive will provide.
Capacity for Higher Limits from Reinsurers	Captive insurers can deal with reinsurers, often availing themselves of the expertise of reinsurance intermediaries. This provides them with the ability to purchase higher limits from sources not directly available to most insureds, perhaps more affordably than commercial insurers.
Tax Savings	If you self-insure, you need to predict and accrue for losses as soon as their potential is known, but you cannot take a tax deduction until the losses are actually paid. Under a properly structured captive arrangement, the premiums paid to the captive are tax deductible. Additionally, the captive structure accelerates the deduction for losses, as the captive is able to establish reserves for ultimate projected losses on its income statement immediately, rather than when the losses are paid. However, tax treatment of captives is a complex issue, so this is not a given. (Members should consult with a professional tax advisor for advice on this matter, but for some general information, see "Tax Implications" later in this report.)
More Control	All of the benefits addressed above lead to more control; what insurance coverage will be available, when premiums are paid, how premiums are invested, and more are within a captive owner's control.

Costs

Time Commitment	The process of first determining if a captive makes sense and then establishing a captive requires a serious time commitment. Once a captive is formed, an organization may need to devote more time to the ongoing oversight of the captive.
Up-Front Cost	Determining the feasibility of a captive requires a thorough analysis of losses, claims-handling expenses, tax implications, and other factors. Most organizations do not have the in-house expertise to conduct this analysis. This means hiring someone to do the job and paying for it. If a feasibility study indicates that a captive is a viable alternative to commercial insurance, incorporation cost will be incurred.
Opportunity Cost	The funds allocated to capitalizing a captive will not be available for use as working capital, to retire long-term debt, to repurchase common stock, or to fund long-term investments that might generate a higher return.
Unacceptability to Some Third Parties	Insurance through a captive may be unacceptable to regulators or to some vendors and customers. And some organizations require certificates or other evidence of insurance to be issued only by insurers with certain minimum ratings by one or another rating service. This "unacceptability" factor can be overcome with the use of a "fronting company" or "fronting insurer"- a commercial insurer willing to produce insurance policies and issue certificates of insurance, even though the captive pays the claim in full. Commercial insurers, however, charge a fee for this service, which increases the cost of using a captive. (See "Fronting Arrangements" later in this report.)
Risk of Adverse Loss Experience	Most captives are formed based, in part, on the assumption that future losses will be similar to past losses, but it is impossible to predict when there will be an ice storm, a major lawsuit, a terrorist attack, or some other catastrophic event. For captives writing risk not previously self-insured, by the parent or by subsidiaries, there is the potential for increased cost associated with such unexpected adverse loss experience. If a major catastrophe or a high frequency of smaller losses should occur just after a captive owner has implemented their program, it could take some time to catch up to a break-even point.

Single Parent Captive

Single Parent Captive

Definition

A single parent captive is a separate legal entity that insures the risks of its parent company and the parent company's other subsidiaries. It is usually established as a subsidiary of the parent company.

The owner also decides whether to purchase reinsurance and, if so, the amount and type. Confidentiality is maintained, and there is a wide range of domiciles from which to choose (theoretically, in any location).

Purpose/ Overview

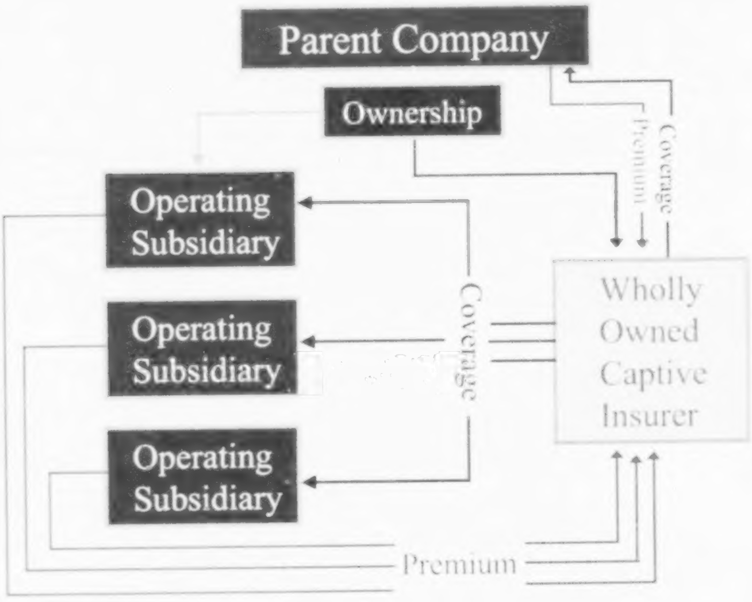
It is important to note, however, that these freedoms are not unbounded. The captive will be regulated by the governmental authority that oversees captives in that domicile. The captive's business plan must be reasonable, including adequate funding for the risks borne by the captive.

When forming a single parent captive, the owner will bear the entire cost of a feasibility study and of capitalizing the captive. The initial cost to capitalize the captive will vary according to the domicile (see "Captive Domiciles" later in this report), in accordance with the classes of insurance written and the premium volume.

Next Steps

The single parent captive is ideally suited to medium to large companies that have a predictable layer of losses, highly focused risk management objectives, and strong risk-mitigation programs. Single parent captives are also ideally suited to companies whose best offer from the commercial insurance marketplace is clearly overpriced. In order to realize a return on investing in forming a captive particularly the initial cash outlay a single parent captive must be a long-term commitment.

Typical Structure



Example

Single Parent Captive	
Background	During 2002, a builder with a requirement to purchase insurance limits in excess of $10,000,000 and the financial ability to accept a deductible of up to $500,000 began exploring captive insurance companies. The builder felt that insurer's premium rates were much higher than the risk being underwritten. The company felt they were being penalized by insurers for the poor claims experience of other construction firms.
Rationale	A captive would offer the builder the ability to capture profits that were being earned by the commercial insurer. This would in turn lower the overall cost of insurance.
Result	
The builder now owns an offshore captive that insures a portion of the builder's Property, Builder's Risk and General Liability programs. The builder accepts a high deductible from its commercial insurer and in addition pays premium to the captive to insure this risk. As a result total insurance costs have been reduced.	

Parent Company's Access to Captive's Cash Flow

When a parent company shifts cash to a captive to support premium and capital requirements, there may be an "opportunity cost" associated with that transaction. That money will no longer be available to use for other purposes.

There are two relatively common methods for returning funds in a captive back to the parent company:

- Retained earnings can generate dividends
- Earnings can be loaned from the captive to the parent

Regulations on loaning money back to the parent company differ from one domicile to the next. For example, Barbados and British Columbia have no formal restrictions. Bermuda formally permits a captive to loan no more than 25 per cent of its reserves; however, the regulators, in practice, have waived this restriction for parent companies with solid financial positions.

Loaning funds back to the parent company may have negative tax consequences. Loans back to the parent may compromise the arm's-length nature of the captive and jeopardize the deductibility of premiums. Beyond the initial costs and the premiums for coverage, there are certain other ongoing costs. These include:

- Auditing fees;
- Actuarial fees;
- Legal fees;
- Government fees; and
- Management fees.

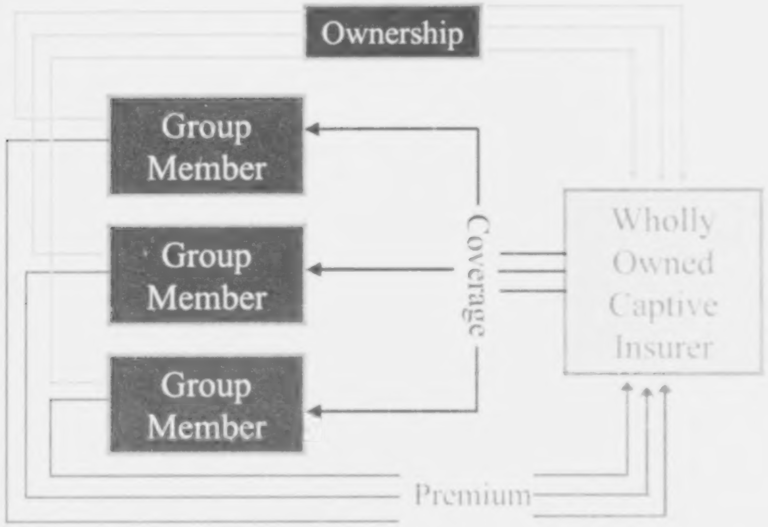
By far, the most costly of these are usually the management fees. The total fees a captive incurs are determined by the number of services needed to operate the captive (see "Captive Management" later in this report).

Group Captive

	Group Captive
Definition	In a group captive, the captive underwrites the risks, determining the appropriate premium for the risks and exposures to risks of each of its members. The members share in the profits and the losses of the group in proportion to the size of their individual shares.
Purpose/ Overview	A trade group or association often forms a group captive for the purpose of providing insurance to its members. The captive may be established as a mutual company or a company limited by shares, with each member of the trade group or association owning a share of the captive. The cost to each group member for captive management can be a flat fee, a function of time and expense (T&E) for services to that member, or a combination, a flat fee for certain basic services that all members will need plus T&E for additional services. These costs may be individually negotiated, or they may be determined by the group. With a group captive, members still have control over the underwriting terms, the policy coverage and wordings. However, this control is shared with other members of the group. The same is true of decisions regarding reinsurance, accrual of investment income, and the wide range of domiciles available. In fact, almost all of the advantages of a single parent captive apply to a group captive, except the decisions are not solely within the individual member's own control. Confidentiality is somewhat diminished, as the captive will share certain information with the group such as profit-and-loss statements of the captive, claim details, and so on.
Next Steps	A group captive also shares the disadvantages of a single parent captive, with the added potential for poor loss experience by a fellow group member (insurance claims paid to one member impacts premiums for all members) compromising the profitability and viability of the captive. Thus, before forming a group, each member should perform extensive due diligence on all of the other organizations which may join the pool.

Group Captive

Structure



Example

<table>
<tr><th colspan="2">Group Captive</th></tr>
<tr><td>Background</td><td>Although there are examples in other industries (oil & gas, transportation), we are not aware of a group captive owned by members of the Canadian residential construction industry. However, at least one such construction program operates in the United States.
Mid-sized general construction companies began struggling with increasing premiums and deductibles during 2001–02. Many of these firms did not have either the willingness or the financial ability to set up a single parent captive. During this time a small group of like firms (in terms of operations and risk profile) began discussions on the group captive concept.</td></tr>
<tr><td>Rationale</td><td>The group decided to form an offshore captive with each member becoming a shareholder. Two aspects of this solution offered a reduction in premiums. First by pooling together the members would have the ability to accept higher deductibles than they could otherwise. Second, by purchasing excess insurance as a group they would have more leverage in negations with insurance companies.</td></tr>
<tr><th colspan="2">Result</th></tr>
<tr><td colspan="2">In mid 2004 this program had eight members; all are mid-sized general construction companies. The program provides Liability lines of coverage with a limit of $1,000,0000. The first $300,000 of this amount is financed by the captive. A commercial insurer provides insurance coverage excess of $300,000 up to the $1,000,000 limit.
Each member or candidate must meet certain criteria before being admitted to the program. These criteria include a requirement that the candidate be profitable over the last two years. Additional consideration is given to long term debt, equity (management prefers less than 200 per cent), and total assets (management prefers greater than $10,000,000). As well, each member is required to invest $30,000 into the captive.</td></tr>
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Rent-a-Captive

Rent-a-Captive

Definition

A rent-a-captive is, in essence, an insurer organized to insure risks of unrelated shareholders. It is generally controlled by an organization looking to profit from fees paid by participants, an insurer looking to enhance its insurance-product offerings, or an insurance broker looking to enhance its client services. Unlike single parent captives and group captives, the interests of the owner or owners do not coincide with those of the participants.

In a rent-a-captive, the capital provider may issue preferred shares to each participant. The agreement will outline how any dividends from good loss experience will be provided to the shareholders. Another approach is to establish a loss-experience account, where each participant benefits from (or bears) the results of a retrospective rating plan or other loss-sensitive rating mechanism.

Participants pay their share of the ongoing costs associated with the rent-a-captive through a flat fee for administration. The fee is generally based on a percentage of the capital being "rented." This will vary but likely range from 1 per cent to 3 per cent.

Purpose/ Overview

An investment manager hired by the capital provider generally makes the investment decisions, and the capital provider may retain part of the investment income.

Participants can benefit from profitable underwriting, and coverage may be available for risks not insurable in the traditional insurance markets. The rent-a-captive may offer more flexibility in program design than a commercial insurer. Further, joining an existing rent-a-captive will likely take less time than establishing a single parent captive.

On the other hand, the participant normally has to provide collateral to the full extent of its aggregate liability, through reinsurance, letters of credit, loss funds, or any alternative acceptable to the capital provider. And the capital provider may decide to withdraw from offering its facilities, so participation in a rent-a-captive may not be the long-term commitment the participant seeks.

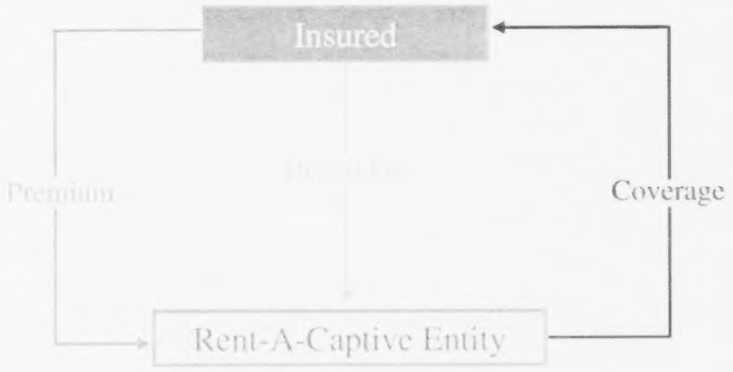
Not every domicile allows rent-a-captives. Those domiciles that do permit rent-a-captives include Barbados, Bermuda and the Cayman Islands. The extent of legislation that has been passed varies from one domicile to the next.

Next Steps

The rent-a-captive can be an ideal solution for an organization too small to form its own single parent captive and unable or unwilling to join forces with others in the same industry in a group captive.

Rent-a-Captive

Structure

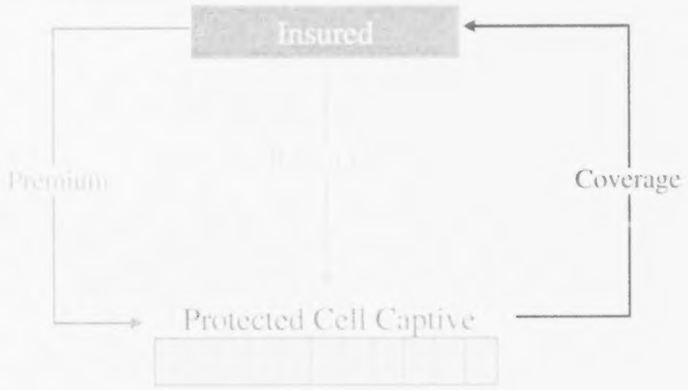


Protected-Cell Captive

Protected-Cell Captive

Definition	The protected cell (or segregated cell) captive can be considered an alternative form of a rent-a-captive. This form of structure is characterized by legal separation between each of the underwriting accounts, or "cells," within the captive and between the insured and the owner. This separation applies to both liabilities and assets.
Purpose/ Overview	Protected cell captives are similar to rent-a-captives except that they protect participants from poor performance of others in the same captive. However, the protected cell concept is fairly new, so the protection it provides is theoretical as it has not been tested in any court.
Next Steps	The individual participant must generally develop a business plan for its cell and submit that plan to the capital provider. The capital provider then approves or rejects the plan. Many of the captive domiciles have enacted legislation enabling protected cells including Barbados, Bermuda and the Cayman Islands - but not British Columbia. In fact, some regulators have specifically stated that they will not address this variation legislatively until such time as the courts have ruled on the tax issues that arise from such cells.

Structure



Example

Rent-a-Captive/ Protected-Cell Captive	
Background	Most Protected Cell companies promote themselves in an effort to attract business; however the participants (renters of the captive) are typically private corporations or wealthy individuals. As such, it is impossible to know with certainty which, and how many, Canadian organizations take advantage of rent-a-captives/ protected cell facilities. According to CFO magazine by 2001 there was an estimated 1,000 companies globally participating in rent-a-captives/ protected-cell captives. This would imply that approximately 20 per cent of captive programs were actually rent-a-captives.

Captive Domiciles

Every corporate entity must be incorporated somewhere. Smaller corporations tend to incorporate in the province in which they have their headquarters and do business. Larger corporations tend to "shop" for the legal "home base" with rules and regulations that best suit their needs. The same is true for captives. In theory, there is no reason a single entity or a group of entities could not form a captive anywhere; in practice, it's just not practical.

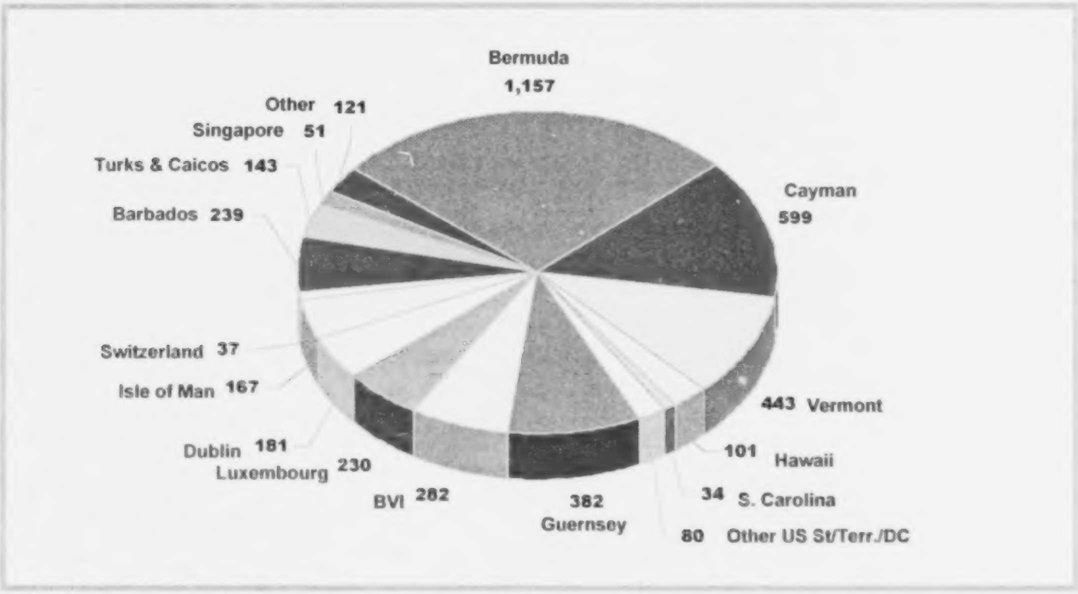
Technically, a captive is an insurer. If a single entity or a group of entities decided to form a captive in a jurisdiction that has not enacted captive-friendly legislation and the corresponding rules and regulations, that captive would have to follow all the regulations that apply to commercial insurers. The laws, rules, forms and filings surrounding the formation of a commercial insurer are quite daunting. Most of the laws are intended to protect individual consumers, and the financial barriers are quite high.

As captives became more popular, certain jurisdictions wanted to attract the banking and corporate travel business that accompanies captives. Those jurisdictions have enacted captive-specific legislation, promulgated captive-specific rules and regulations, and created captive specific infrastructures that ease the way to captive formation. Figure 3.1 approximates the number of captives set up in each global captive domicile.

According to Office of the Supervisor of Insurance in Barbados, there are 101 registered captives on the island owned by Canadian parent companies. The vast majority of these are single parent captives. It is estimated by A.M. Best that close to 60 per cent of Canadian owned captives are located in Barbados. Bermuda, British Columbia and Cayman are home to another 30 per cent. These captives are owned by corporations across all industry types. A.M. Best estimates that there are approximately 300 captives around the world owned by corporations in the residential construction industry.

There are still financial requirements in captive-friendly jurisdictions; they are just much less onerous than elsewhere. In some jurisdictions, there are jail penalties attached to any captive financial chicanery false statements of losses, unauthorized investments, and other violations of captive regulations. The point is not that the rules are lax, but that there are lower capital requirements and much less red tape in jurisdictions that have positioned themselves for captive formation.

Figure 3.1: Global Captive Domiciles



Source: Business Insurance March 10th 2003

Incorporating and licensing a captive to do business in a captive-friendly jurisdiction can be accomplished in a matter of weeks. No organization would consider forming a captive in a domicile that is not captive-friendly because it would be the same as forming a commercial insurer; a process that can take several years and requires more capital.

Fronting Arrangements

A captive may either provide insurance directly or as reinsurance behind a fronting arrangement. A fronting arrangement exists when a fully licensed and admitted commercial insurer issues the policy directly to the insured, but reinsures some or all of the risk to the captive.

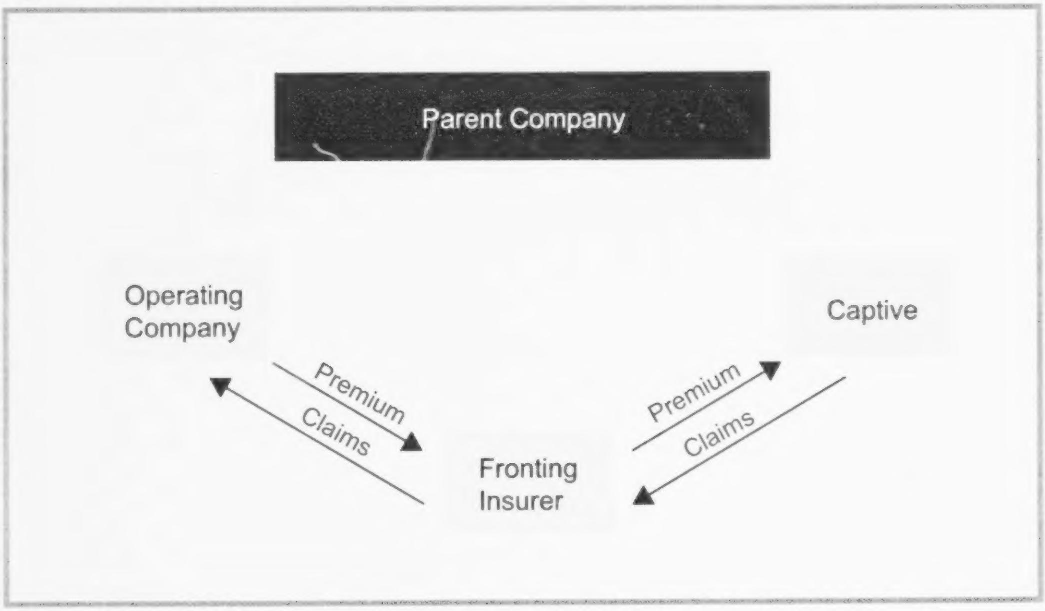
Fronting arrangements are particularly common for mandatory types of insurance, such as auto liability. They are also common in situations where the company insured by a captive has to satisfy certain contractual obligations, such as providing evidence of insurance to a customer, where the contract specifies that the insurer must meet certain minimum requirements with regard to its rating by a rating service, such as A.M Best Company, Moody's, or Standard and Poor's.

The fronting insurer issues the policy and may provide claims administration and loss-prevention services, in exchange for a charge known as a fronting fee or a ceding commission. The premium received by the captive, commonly referred to as the net ceded premium, is used to pay the losses, adjustment expenses, operating expenses, letter-of-credit costs, and any local, legal and audit fees. Funds in excess of these charges are available for investment. Figure 3.2 illustrates the possible cash flow between the parent company and its fronted captive.

The fronting insurer generally requires the captive to furnish some form of financial guarantee, most commonly a letter of credit, to assure that the funds will be available to meet its claims obligations. In addition, the captive must provide the fronting insurer with a loss-escrow fund from which the fronting insurer pays claims. The captive must periodically replenish the fund, but the captive retains a substantial portion of the premium until the losses are actually paid.

In practice the majority of Canadian owned captives operate as reinsurers. For lines of risk where the insured does not require evidence of licensed insurance, captives historically acted as reinsurers to a front in order to avoid Federal Excise Tax (FET). Alternatively, a captive can directly indemnify the parent and its subsidiaries for those deductibles and retentions. This approach has become more common in recent years as insurers have withdrawn coverage from the market. Revenue Canada will wave FET if an insured can provide proof that coverage provided by the captive is not available in the domestic insurance market.

Figure 3.2: Cash Flow Scenario for Fronted Captive Insurance Company



Reinsurance

Captives generally insure the so-called "working layer" of loss, the losses that you know you will incur, statistically, on an annual basis. In addition, captives may insure above that working level to a point that makes economic sense for your organization. Beyond that level, a captive should purchase reinsurance. The level at which a captive reinsures its risks is, in part, a function of the cost of that reinsurance. This is one area where the current hard insurance market becomes a factor. (For more on how to decide how much risk to retain and how much to insure, see the Risk Tolerance section of this report).

There are a number of questions a reinsurer will ask when determining if it wishes to reinsure a given captive and, if so, what it will charge. The following are some of the issues that will likely be raised:

- Who manages the captive? The level of experience of the captive manager is critical. Reinsurers are looking for strong and experienced management.
- Where is the captive domiciled? Some domiciles exercise stricter regulatory scrutiny than others. The stricter the scrutiny, the more comfortable the reinsurer.
- How strong are the captive's financial statements? Financial statements are viewed as indicative of the financial acumen of the parent company. Strong financial statements bode well for long-term stability of the captive program.
- What risks does the captive insure, and what are the retentions? The types of risk and the degrees of retention paint a clear picture of the risk appetite of the insured. Some programs are riskier than others, as are the risk appetites of the reinsurers.
- What company has prepared the actuarial report? Reinsurers are more comfortable with an actuarial report from a company that has a reputation for quality and substantial experience dealing with captives.
- How established is the captive? The longer a captive has been around, the better the reinsurer is able to gauge its long-term viability.

Companies that have captives cannot escape a hard insurance market entirely, as some level of (re)insurance is almost always needed. Nonetheless, funding the working layer of loss in a captive and (re)insuring the rest should be less expensive, on average, than insuring the working level of loss with commercial insurers and letting them charge for the reinsurance they buy.

Tax Implications

An important question for captive owners is whether or not premiums paid to the captive are tax deductible. There are two fundamental issues that determine the answer:

- The extent to which there is risk shifting; and
- The extent to which there is risk pooling.

Income Tax Review – Offshore Captives

The income tax issues related to an offshore captive can be classified into three sections:

- Tax deductibility of premiums paid to the captive;
- Tax treatment of captive underwriting and investment income;
- Tax treatment of profits repatriated to the parent.

The income tax status of profits earned in an offshore captive owned by a Canadian parent company will be dependent upon whether the risk being underwritten is Canadian or non-Canadian (the risk of a Canadian company's foreign subsidiary).

Foreign Accrual Property Income Rules

A single parent captive owned by a corporation will likely be deemed to be a Controlled Foreign Affiliate (CFA). If so, the Foreign Accrual Property Income (FAPI) rules will apply. The comments below are based on a general reflection of the income tax issues as they apply to a CFA. An organization considering a captive insurer should seek professional tax advice.

	Canadian Risk	Non - Canadian Risk
Premium Deductibility	In 1987, in the Consolidated Bathurst case, the Federal Court of Appeal ruled that where there is a genuine transfer of risk from the insured to the captive, the premium paid would be deductible for tax purposes.	The ability to deduct premium expense is limited by insurance market conditions. Premium will be deductible to the extent it is representative of the cost to transfer risk to a third party insurer. Excess premium amounts may not be afforded deductibility.
Taxation of Captive Profits	An offshore captive, wholly owned by a Canadian parent, would be subject to local income tax rates. The actual local taxation rate will be dependent upon the particular domicile. However the captive will also be considered a CFA and it will be subject to the Canadian Foreign Accrual Property Income (FAPI) regulations. These regulations essentially state that passive income of a CFA will be taxed as earned, as if it had been earned in the hands of the Canadian parent. The income of the captive derived from insuring Canadian risk will be considered FAPI. The captive will be able to reduce taxable income by expensing loss reserves. This will effectively accelerate a tax deduction relative to self-insurance without a captive in place.	It is generally accepted that profits earned in an offshore captive from the insurance of non-Canadian related risk (including the investment income earned on premiums and capital if incidental to the active business) will not be considered FAPI and therefore not be subject to Canadian income tax when earned.
Repatriation of Profits	Profits accruing in the captive in the offshore domicile may be repatriated free of any further tax if they have previously been included in the taxable income of the Canadian parent (i.e. taxed as FAPI).	The taxable status of dividends earned from the insurance of non-Canadian related risks will be dependent upon the relevant captive domicile's tax treaty with Canada. Hence, at minimum the parent company will benefit from tax deferral until the profits are repatriated. Further benefits may be achievable dependent on the domicile of choice. This issue is addressed in the domicile comparison section of this report.

In summary, premiums paid to the captive will be tax deductible. Loss reserves are an allowable expense in the calculation of the captive's taxable income. Captive profits and the associated investment income earned from insuring non-Canadian risk can accrue free of Canadian FAPI rules. Further, the tax status of dividends paid out of exempt surplus will be dependent upon the tax treaty between Canada and the captive domicile. However, profits from insuring Canadian risks will be taxed as earned at the parent's FAPI rate.

Foreign Investment Entity Rules

If the offshore captive is owned by a group of investors it may not be deemed to be CFA. However, income earned in the captive may still be attributed back to the members on an accrual basis. To establish if this is the case, it will be necessary to determine if the captive is a foreign investment entity (FIE). From the standpoint of captive insurance companies, the new FIE rules expand the scope under which Revenue Canada will tax foreign income on an accrual basis. The Canadian tax laws affecting group owned offshore captives are more complex than those related to CFA's. It is particularly important that the members of a group captive seek qualified professional tax advice.

Certain characteristics of captive programs are important to support premium deductibility:

- The subsidiaries should not own any stock in the captive; it should be owned by the parent company.
- The captive should insure incorporated subsidiaries, not branches of the parent.
- The captive should issue arm's-length insurance or reinsurance contracts with premiums established in accordance with insurance industry standards.
- The captive should be regulated in its domicile as an insurer.
- Loss reserves should be reasonable, again in accordance with insurance industry standards.
- The captive should be capitalized at a reasonable level relative to the risks it is assuming.
- Risks should be pooled within the captive—there should not be separate accounts for each subsidiary contributing premium and business to the captive.

Further, certain features could result in Revenue Canada (or the IRS if the parent has a US subsidiary) determining that premiums paid to a captive are not tax deductible, including the following:

- There are financial guarantees between the captive and its owner.
- There is insufficient capitalization for the captive to stand on its own.
- The captive is not subject to appropriate regulation.
- Funds are loaned back to the parent or subsidiary via a non-commercial agreement.

A critical point to keep in mind, however, is that forming a captive is a significant commitment, and any positive tax implications that may result should not normally be the main driver in the decision to form a captive. More important issues are commitment to loss prevention, accurate loss forecasting, consistent funding, and effective program design.

Tax issues discussed above are general in nature, any organization considering a captive insurer should seek qualified professional tax advice.

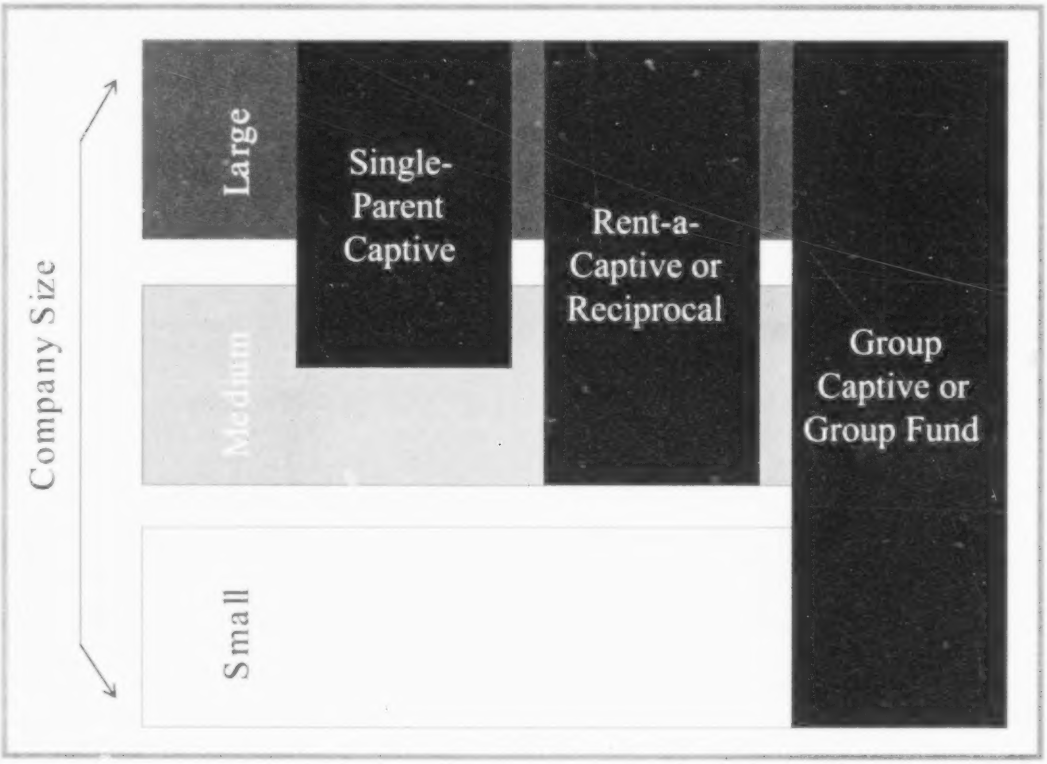
How does a company decide which self-insurance vehicle is most appropriate?

The most appropriate type of self-insurance vehicle is dependent upon the unique circumstances of the insured or group. As a general rule, the choice can be narrowed down based upon premium income to the program.

For example there would be very few active single parent captives in the world with less than $500,000 in annual premium. It is important to remember that this is premium associated with self-insured risk and does not include premium paid to excess insurers or reinsurers.

At the opposite end of the scale, it is certainly possible to set up a group funded deductible with annual program premiums of $100,000. In practice most group funds would have at least this much premium. Figure 3.3 attempts to illustrate this spectrum.

Figure 3.3: Self Insurance Vehicles



Cost Comparison of Non-Traditional Insurance Programs

The following table compares and contrasts the costs associated with operating and establishing different kinds of single parent and group programs.

Single parent captives and group captives require substantial capital investments and set-up costs in relation to the other non-traditional insurance programs. The rent-a-captive program is the most economical option in terms capital requirements, operating and set-up costs.

It is important to obtain legal and accounting advice, as well as undertake a proper feasibility study before determining the appropriateness of any non-traditional insurance program as costs vary by company, jurisdiction, purpose, insurance coverage, and other variable factors. The table below is for general comparison purposes only, and does not represent a proper feasibility study.

Operating Cost Component	Reciprocal	Group Funded Deductible	Single Parent Captive	Group Captive	Rent -a- Captive
Operating Costs					
Premium Tax	3 per cent of premium	Dependent on legal advice	3 per cent of premium	3 per cent of premium	3 per cent of premium
Fronting Fee	0	0	7 per cent of premium	7 per cent of premium	7 per cent of premium
Letter of Credit	Cost driven by size of program	Cost driven by size of program	Cost driven by size of program	Cost driven by size of program	Cost driven by size of program
Management Fee	$100,000	$100,000	$50,000	$100,000	$10,000 - cost is allocated
Annual Audit Fee	$10,000	$10,000	$7,500	$10,000	$1,000 - cost is allocated
License Fee	Yes, varies by province	0	$2,500	$2,500	0
Outside Director Fee	$2,500	0	$2,500	$2,500	0
Company Secretary Fee	$2,500	0	$2,500	$2,500	0
Annual Meeting Expenses	0	0	$2,500	$2,500	0
Capital Charge	n/ a	n/ a	0	n/ a	Cost driven by size of program
Set-Up Costs					
Minimum Capital Requirements	May be dictated by regulator	Not regulated	$300,000	$300,000	0
Consulting Fees	Cost driven by number of members	Cost driven by number of members	$10,000	Cost driven by number of members	0
Legal Fees (Incorporation/ Licensing)	$25,000	0	$25,000	$25,000	0
Legal Fees (Subscribers' Agreement)	Cost driven by complexity of program	Cost driven by complexity of program	n/ a	Cost driven by complexity of program	n/ a
Opening Balance Sheet Audit	$2,500	$2,500	$2,000	$2,500	0

4

Phase 4: Implementation of Non-Traditional Insurance

There are three steps involved in moving to a captive insurance program:

- Feasibility: performing a feasibility study to determine if a captive will work for your organization;
- Implementation: selecting vendors or personnel to run your captive; negotiating fronting programs; and
- Management: launching your captive.

Timeline for Getting Started

The amount of time it takes to implement a non-traditional program varies widely according to the type of program in question. Under normal circumstances, the timing can be as follows:

Program	Timing
Single Parent Captive	The usual time frame is two to three months, as follows: ■ The feasibility study (including data collection) takes about four weeks ■ Vendor selection can range from one day to two weeks ■ The time between submitting a properly completed license application to captive formation, varies by domicile, but is normally from two to four weeks
Reciprocal/ Group Funded Deductible/ Group Captive	The time to form a group program is usually considerably longer because the structure is normally developed by a small group of companies that then attempt to sell the program to a larger group of companies. This process generally can take from six to eighteen months. Once enough members agree to join, the process of formation takes no longer than for a single parent captive.

Program	Timing
Rent-a-Captive	Most companies will never form a rent-a-captive facility, so the question is how long will it take to join one?
	Because rent-a-captives are existing facilities, there is no delay other than the amount of time it takes an insured to analyze and then join the rent-a-captive.

Feasibility Study

A captive feasibility study includes at least the following six steps:

- Risk tolerance
- Data collection
- Retained-loss projections
- Economic analysis, including sensitivity analysis
- Domicile selection
- Selection of Vendors

A company can either perform this study in-house, or hire a consultant to do it. In either event, this first step will require a time commitment on the company's part. In most cases it's probably more efficient to spend time gathering data and hire a third party to assist in the analysis.

The initial capital investment will be required at this point. First, the feasibility study will be conducted for a fee. This is an important step. A quick, poor quality analysis may deliver inaccurate results. It is important to contract with a vendor that has qualified experience with captives, but that has no direct vested interest in the outcome. This way the right conclusions will be reached.

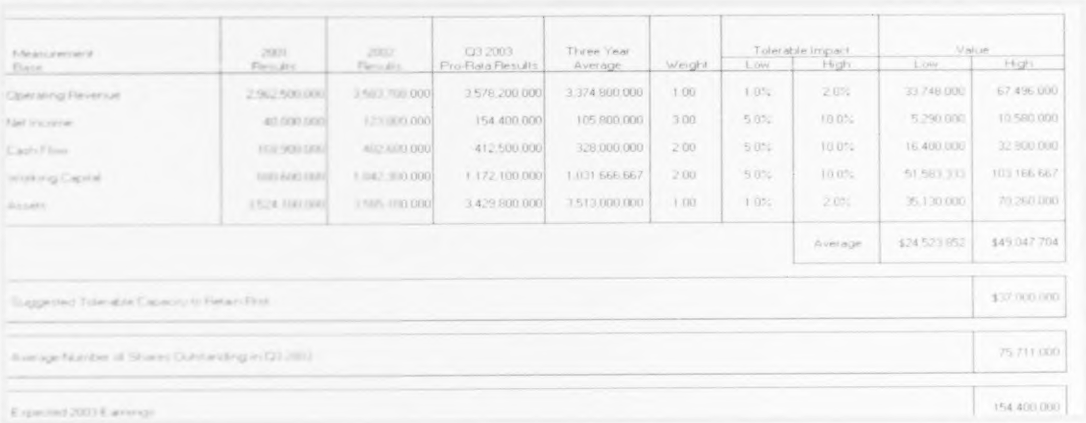
Risk Tolerance

An organization has both an ability and willingness to retain risk. A qualified captive consultant will use generally accepted measures of materiality in order to develop a suggested *ability* of the insured to retain risk. In order to do this the consultant will review the historical and projected financial statements of the insured. Based on the premise that the insured will require liquid assets in order to meet self-insured loss obligations, the review should focus on at least four relevant financial measures:

- Revenue
- Net Income
- Working Capital
- Operating Cash Flow

It is important that the analysis utilizes normal (or expected future) operating results. The next step in the process is to apply measures of materiality to each financial indicator. Figure 4.1 is a sample risk tolerance analysis illustrating the types of data used in the analysis. An organization's *willingness* to assume risk is equally important as its ability to retain risk. This appetite to accept risk may be higher or lower than the calculated ability to retain risk. As such, the results of the analysis will simply provide a guideline.

Figure 4.1: Sample Risk Tolerance Analysis



Measurement Base	2001 Results	2002 Results	Q3 2003 Pro-Rata Results	Three Year Average	Weight	Tolerable Impact		Value	
						Low	High	Low	High
Operating Revenue	2,962,500,000	3,583,700,000	3,578,200,000	3,374,800,000	1.00	1.0%	2.0%	33,748,000	67,496,000
Net Income	40,000,000	123,000,000	154,400,000	105,800,000	3.00	5.0%	10.0%	5,290,000	10,580,000
Cash Flow	168,900,000	402,600,000	412,500,000	328,000,000	2.00	5.0%	10.0%	16,400,000	32,800,000
Working Capital	880,600,000	1,042,300,000	1,172,100,000	1,031,666,667	2.00	5.0%	10.0%	51,583,333	103,166,667
Assets	3,524,100,000	3,585,100,000	3,429,800,000	3,513,000,000	1.00	1.0%	2.0%	35,130,000	70,260,000
							Average	$24,523,852	$49,047,704

Suggested Tolerable Capacity to Retain Risk	$37,000,000
Average Number of Shares Outstanding in Q3 2003	75,711,000
Expected 2003 Earnings	154,400,000

Data Collection

In the insurance industry, the past is used extensively to predict the future. Thus, past losses are a fundamental part of any captive feasibility study. The analysis should include at least five years of loss experience, ten if it is available.

In addition, the analysis will require exposure data that matches the years of loss data. For example, if seven years of loss data have been acquired, seven years of exposure data is needed. The type of exposure data will be dictated by the coverages being considered. For instance, commercial general liability premiums are often based on revenue, and business interruption premiums are based on construction values.

The analyst will also need information about certain financial assumptions; marginal income-tax rate (both business and FAPI see the Tax Implications section of this report); projected exposures for the next year; and expected rate of return on investments.

The loss information for a feasibility study should be gross, not net. For example, assuming the insured is interested in placing general liability exposures in a captive, if the commercially insured coverage for the past five years included a $10,000 self-insured retention, the loss runs should be marked up to include the self-insured portion of the loss, not just the net amount paid by the insurer or insurers.

In addition, the data should include all of the losses that fell within that retention, those that were paid completely by the insured, without any involvement on the part of the insurer. The more years of data and the more accurate and complete the data, the more meaningful the feasibility study will be.

Retained Loss Projections

Using loss experience and exposure data of the insured, plus analogous insurance industry data, the analyst will project future losses. The numbers will be adjusted to incorporate estimates for inflation and for loss development. (Loss development is determined by using "factors" designed to correct errors in estimating the reserves for known but unsettled losses and to make an allowance for incurred but not reported losses-IBNR.)

It's important to remember that these loss projections are just estimates. There are sophisticated actuarial and statistical tools available to analyze the past and, with it, project the future. However, they are never accurate to the penny. This is the uncertainty factor that builds in the potential for a captive to be a losing proposition in the short term.

Economic analysis, including sensitivity analysis

The analyst should be able to develop certain projections, based on past experience, projected losses, and expectations for a captive. These should include the after-tax present-value benefit of a captive.

In order to perform this analysis, you must make assumptions about a variety of factors, including:

- Projected losses;
- Operating expenses;
- Investments;
- Loan-back levels; and
- Taxes.

Domicile Selection

There are many issues that factor into choosing the right domicile for a captive, including permitted business, premium taxes, capitalization and solvency requirements, proximity to the parent and income tax considerations.

Barbados is the most popular domicile for Canadian companies, primarily as a result of the ability to return dividends to the parent without triggering an on-shore income tax liability (see the Income Tax Issues section of this report). British Columbia is the only Canadian province with captive legislation in place.

Selection of Vendors

Theoretically, a captive could be self-managed by the owner corporation. However, with all of the expertise that has grown up around captives, it makes more sense to contract with experts to manage it. Some of the services purchased will include:

- Ongoing actuarial analysis;
- Underwriting;
- Claims handling;
- Loss-prevention services;
- Policy issuance;
- Premium billings and collection;
- Accounting and statistical analysis;
- Legal services; and
- Audit services.

Most established domiciles have extensive and competitive vendors available to bid on captive services as needed. In practice, most captive owners consolidate these services as much as possible from a single source, in order to reduce costs.

Setting Up a Single Parent Captive

At this point the captive manager will file the application for a license. This is usually issued subject to payment of the applicable licensing fees and establishing the required capital in a form satisfactory to the licensing authority.

The process will vary by domicile but the usual lead-time is between four and six weeks. The whole process will entail the items listed below.

- Selection of a captive manager
- Selection of additional service providers
- Selection of a name for the company
- Completion of the Business Plan
- Incorporation of the company
- Capitalization of the company
- Audit certification of the opening balance sheet
- Final application for a license
- Incorporation meeting of the Board

Selection of a Captive Manager

The first step in implementing a captive is to select a captive manager. The captive manager can then assist through the entire process of implementation. The manager will also be able to introduce the parent to and recommend other service providers.

Selection of Other Service Providers

The most important service provider in the set-up phase is the legal advisor. The legal advisor will assist in incorporation of the captive. Most Canadian banks have some presence in the major captive domiciles, in particular Barbados. Likewise the major auditing firms are represented. From a regulatory standpoint there is no requirement for a captive to retain an actuary. However, the captive parent may want to continue to retain actuarial services. While there is no need for the actuary to have operations in the captive domicile it may be practical for the actuary to be present at Board meetings, which should take place in the domicile.

Additionally, in most jurisdictions, there is a regulatory requirement that at least one member of the board be a local representative. The captive manager will typically assist in this matter by introducing the parent to suitable candidates for this position.

Selection of a Name for the Company

The local regulator will typically approve the captive name. In most domiciles the name must include the words "Insurance", "Reinsurance" or "Indemnity" and must finish with the words "Limited" or "Incorporated".

Completion of the Business Plan

The business plan should summarize the proposed business of the captive including such details as the nature of the insurance being underwritten, the fronting arrangements, any letter of credit requirements, annual premium volume estimates, capitalization and pro-forma financial statements for the first three years. It is typically required to include a brief history of the parent as well as financial statements.

Incorporation of the Company

Once the company has submitted the business plan, it is incorporated. This involves submitting a series of forms and documents to the local regulator.

Capitalization of the Company

Once the company is incorporated, the incorporating director will open a bank account to receive the initial capital funds of the company.

Audit Certification of the Opening Balance Sheet

The captive manager will prepare an opening balance sheet reflecting the cash, share capital subscribed for, incorporation costs and payables. This balance sheet will be submitted to the captive's local auditors for certification.

Final Application for a License

Once all of the administrative details have been completed, the manager will submit the final application for a license to the regulator. The application will usually include copies of all the incorporation documentation, the business plan, certified opening balance sheet, draft management contract and resumes of all of the company's directors.

Incorporation Meeting of the Board

Soon after the company has received its license (or possibly before the final application is submitted), the Board of Directors should hold its incorporation meeting. This will formalize all of the activity undertaken to date, officially appoint all the service providers and officers of the company, adopt all the various corporate documents etc., and approve and accept the reinsurance business to be assumed.

Timeframe

Based on our experience of similar incorporation and license applications, we would suggest the following timetable:

Activity	Timeframe
Selection of Manager	Day 1
Selection of other Service Providers	Week 1
Completion of Business Plan	Week 1
Incorporation of the company	Week 2
Capital funds wired to Barbados	Week 3
Audit certification	Week 4
Final application submitted	Week 5
Incorporation meeting of the Board	Week 6

Setting up a Group Captive Program

Just as with any insurance program, the value and quality of group-captive programs varies widely. Here are 10 question sets an organization should ask when considering a group captive:

- How well-established is the program?
- Who else is in the program? Are any members dramatically larger than the others?
- Is there a commitment to loss prevention?
- Are companies with poor loss experience allowed into the program?
- Is the sponsor a non-profit association representing a certain industry or trade group or a for-profit organization?
- How is the program structured? At what point does reinsurance protection "kick in"?

- What expenses are built into the program (e.g. captive management, claims handling, loss prevention, fronting costs, commissions) and how much are they?
- Who earns the reinsurance commissions, and how much are they?
- What is the fronting insurer's commitment?
- How much capital has to be invested, and what is the timing?
- What happens if losses far exceed projections? Can I be assessed additional premium?

An experienced captive consultant will be able to help review the answers and determine if the program is worth joining. Group programs are ideally suited to trade groups and associations, particularly when there is a high degree of homogeneity and predictability to the risks and a high degree of control over those risks.

Members should anticipate the process of setting up a group program taking up to 12 months. This section of our report describes the general process broken down into three distinct phases.

Phase 1: Legal Structure

This phase can take up to 6 months. It involves the following 4 major steps:

Activity	Timeframe
Establish an Implementation Committee	Each participating member should have a representative on the Implementation Committee (IC). The IC is a temporary committee, typically dissolved with the establishment of a Board of Trustees.
Appoint a General Consultant	The general consultant (GC) will be appointed by the IC. Services provided by the GC will be to provide assistance, guidance and advice for the development and implementation of the program. This will include recommending to the IC appropriate third party service providers that provide the necessary expertise required to implement the program.
Secure Legal Counsel	The first responsibility of the GC will be to retain a legal advisor acceptable to the IC. The legal advisor should be familiar with the creation of risk pooling arrangements and the development of a separate administration/ risk management services entity. In addition, any potential regulatory issues should be reviewed and addressed.

Activity	Timeframe
Develop Subscriber's Agreement	The Subscriber's Agreement (SA) will be the most important document related to the program. This is the document that will bind the various members. This agreement, produced by the GC and Legal Advisor, will outline policies and procedures covering: ■ Admission and withdrawal of members from the program ■ Voting rights ■ Election and duties of officers By–laws of pool, which should include references to the following: ■ Purpose of the pool ■ Membership eligibility ■ Frequency of board meeting ■ Election of board of trustees ■ Determination of term of office ■ Compensation of board (if any) ■ Powers and duties of the board ■ Contributions/ assessments ■ Non-payment provisions ■ Withdrawal provisions ■ Assessments and dividends based upon excessive/ insufficient funding

Phase 2: Establish Operating Procedures

Many of these steps, which can be initiated during Phase 1, involve the retention of outside service providers. Overtime, as the pool becomes established the group may wish to bring certain services in-house. Decisions made during this phase must be consistent with the final Subscriber's Agreement.

Activity	Timeframe
Excess Insurance Placement	A broker must be appointed to the program. The broker will prepare a submission for the insurance marketplace outlining the coverage required, negotiate terms on behalf of the pool and finalize placement of the coverage.
Establish Risk Management Policies & Procedures	It is important that all participants follow the same risk management best practices. Periodic risk management audits will be necessary to enforce these policies and procedures.
Claims Management	A Claims Adjuster and Defense Council familiar with the risks of the members will need to be retained by the pool.
Information System	The pool will need to acquire (or need access to) an appropriate information system. It is important that the system allows the pool to communicate efficiently with all members.

Activity	Timeframe
Financial Management	Investment policy and banking agreements need to be completed.

Phase 3: Administration

This implementation phase is really the beginning of the pool's operation. At this stage the pool will select an administrator; either in-house or a contract manager. The administrator will work closely with the pool's insurance broker, claims adjuster, actuary, defense counsel, general counsel, and loss prevention specialists. It will be the responsibility of the administrator to oversee the day to day functions of the pool, including:

- Processing renewal/ prospective member applications
- Preparing renewal/ prospective proposals
- Drafting wording for coverage documents and/ or endorsements
- Processing all members' coverage documents, including endorsements
- Billing and collecting members' contributions
- Issuing certificates of insurance
- Maintaining property schedules
- Allocating of costs
- Preparing financial reports
- Calculating and processing assessments/ dividends
- Advising and counselling the Board of Trustees and members with respect to the financial strength of the pool
- Overseeing and auditing the performance of loss control and claims handling services
- Attending all meetings relating to the pool's operation.
- Fielding all questions from all members throughout the year

Domicile Comparison

Those domiciles usually considered by Canadian corporations are Barbados, Bermuda, British Columbia, and the Cayman Islands. All four of these domiciles have a stable political and business environment and a well-established infrastructure of banking, legal, accounting and other financial services. Although costs vary among the four domiciles, the differences are not usually large enough to be a key factor. The chart below summarizes the number of active captives in each domicile.

Figure 4.2: Active Captives by Domicile

	Number of Captives
Bermuda	1,157
Barbados	239
British Columbia	16
Cayman	599

Source: Business Insurance March 10th 2003

Bermuda

As can be seen from the chart above, Bermuda is the most popular domicile and as such has the most sophisticated infrastructure. No local income tax is imposed. However, unlike Barbados, Bermuda is not a designated treaty country and income would be taxed upon repatriation to Canada except to the extent that it has already been taxed as FAPI. Corporations whose motivations are to build surplus over the long term rather than to repatriate funds on an ongoing basis often choose Bermuda.

Barbados

Although Barbados does impose local taxes, captive insurance companies can choose to be exempt and pay no local income tax, or chose to be subject to tax at a net rate of 2.8 per cent.

Generally, captive income from the insurance of Canadian risks will be taxed in the parent's hands as FAPI. However, income from non-Canadian related risks is not taxed in the parent's hands. It is generally accepted that captives subject to the 2.8 per cent income tax rate will preserve the ability to repatriate earnings back to Canada on a tax-free basis under the Canada/ Barbados Tax Treaty.

Thus, a Barbados captive insuring non-Canadian related risks can earn income at a favourable local rate of tax and free of Canadian income taxes both when earned and when repatriated. Barbados is often chosen as the domicile for Canadian corporations with foreign operations.

British Columbia

British Columbia does not offer the low tax or tax free environment of the other domiciles. British Columbia captives are subject to full federal and provincial taxation but as recognized insurance companies they are permitted to deduct discounted loss reserves in computing income; this allows for a deferral of tax but not a reduction.

British Columbia captives are not licensed to write business in other provinces and so a fronting insurer must be used for risks in other provinces to avoid Federal Excise Tax (10 per cent of premium). This additional cost typically offsets the advantage of tax deferral. British Columbia can be an attractive domicile for corporations with significant British Columbia based risks.

Cayman Islands

The Cayman Islands (Cayman) is another popular domicile with a sophisticated infrastructure. No local income tax is imposed. However, Cayman is not a designated treaty country and income would be taxed upon repatriation to Canada except to the extent that it has already been taxed as FAPI. Relative to Bermuda, Barbados and British Columbia, required solvency margins in the Cayman are more at the discretion of the local regulator.

Issue	Bermuda	Barbados	British Columbia	Cayman Islands
Permitted Business	The captive can insure or reinsure any non-Bermudian risk.	The captive can insure or reinsure any non-Barbadian risk.	The captive can insure or reinsure any commercial risk, personal lines are not permitted.	The captive can insure or reinsure any non-Cayman risk.
Premium Taxes	There are no local premium taxes.	There are no local premium taxes.	Provincial premium taxes of approximately 3 per cent are applicable.	There are no local premium taxes.
Capitalization & Solvency Requirements	The minimum capitalization ranges from US $120,000 to $1,000,000. The solvency requirement is a premium to capital ratio of 5:1 under $6,000,000 of premium, 10:1 thereafter.	The minimum capitalization is US $125,000. The solvency requirement is 20 per cent of premium up to $5,000,000 in premium. When premium exceeds $5,000,000 solvency requirement is $1,000,000 plus 10 per cent of premium in excess of $5,000,000.	The minimum capitalization is CDN $200,000. The solvency requirement is $100,000 in excess of the minimum capital.	The minimum capitalization is US $120,000. There is no formal solvency requirement.
Local Income Tax	There is no local income tax.	Under the Exempt Insurance Act captives are not subject to income tax. Alternatively, a captive may choose to register under the Insurance Act in which case the captive will be subject to a net rate of 2.8 per cent income tax. Canadian companies may choose this alternative in an effort to preserve the ability to repatriate earnings back to Canada on a tax free basis.	The captive will be a resident of Canada for tax purposes and subject to full provincial and federal income tax rates.	There is no local income tax.
Investment Restrictions	The value of liquid assets must not be less than 75 per cent of the value of liabilities. Unless the Minister of Finance consents to waive this requirement.	There are no specific investment restrictions other than a loan back to the parent cannot constitute minimum capital.	There are no specific investment restrictions.	There are no specific investment restrictions. However, the Head of Insurance Supervision must be notified of any significant alterations to investment program.

5

Phase 5: Information Product

Builder's Guide to Construction Risk Management and Insurance

More than ever, builders need a strategy for risk management planning. Poor planning could result in a catastrophic loss of life or physical assets. More commonly in the Residential Construction Industry, poor planning results in litigation, delayed project completion and cost overruns.

The effective management of key risks and insurance is a crucial consideration in project planning. Construction insurance is a highly specialized and complex field. There is no all-encompassing policy for a project. Instead, a variety of policies, coverages, exclusions, deductibles, and limits are combined to address insurable risks.

Even companies able to employ full-time insurance specialists or risk managers require professional insurance brokers with specialized expertise in construction to assist in procuring the proper coverage at a competitive price.

A successful strategy for dealing with Residential Construction Industry risks involves:

- Key risk identification;
- Risk allocation and transfer;
- Development and implementation of a site safety program; and
- Decisions on funding losses.

Figure 5.1 outlines the sequence of events critical to planning a successful project.

This guide is a starting point for builders who want to understand and manage Residential Construction risks better. Figures 5.2 to 5.8 answer frequently asked questions and offer some helpful guidelines for builders to follow.

Figure 5.1: Project Risk Management Decision Chart

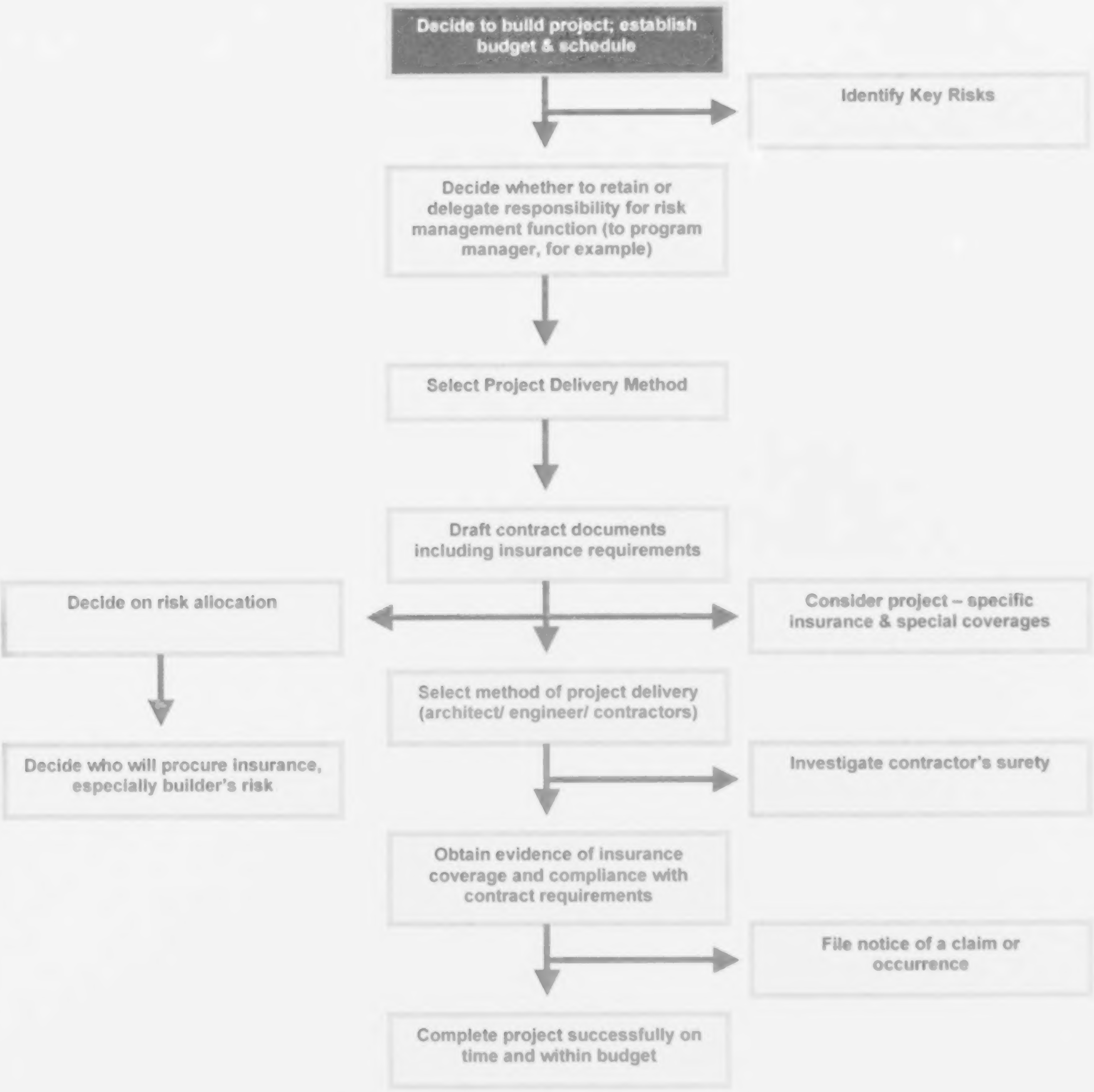

Decide to build project; establish budget & schedule
Identify Key Risks
Decide whether to retain or delegate responsibility for risk management function (to program manager, for example)
Select Project Delivery Method
Draft contract documents including insurance requirements
Decide on risk allocation
Consider project – specific insurance & special coverages
Select method of project delivery (architect/ engineer/ contractors)
Decide who will procure insurance, especially builder's risk
Investigate contractor's surety
Obtain evidence of insurance coverage and compliance with contract requirements
File notice of a claim or occurrence
Complete project successfully on time and within budget

Figure 5.2.1: Getting Started

€ **What risks should I be concerned with that may or may not be covered by insurance?**

A typical insurance program focuses on the physical risks that face your business. These are risks that occur as a result of damage to the work or damage and bodily injury to third parties. Figure 5.2.2 lists key risks that are potentially insurable in whole or in part.

However, there are many risks that are not covered by insurance. Some common examples are listed in Figure 5.2.3.

Figure 5.2.2: Potentially Insurable Risks

Key Risks To Consider		Insurable
Business Interruption Risk	Failure to effectively plan for and recover from interruptions of operations may impair the builder's ability to meet deadlines and complete a project.	
Construction Accidents Risk	Unintentional damage on or to the construction site and/ or key equipment resulting in delays, or preventing the completion of a project.	
Cost Overrun Risk	Costs incurred outside of an acceptable range for a project (outside of contingency) may adversely affect return on investment or project completion.	
Credit (Default) Risk	Inability to adequately assess the creditworthiness of counterparties, suppliers or other key parties may result in default exposure or lack of performance.	
Employee/ Third Party Fraud Risk	Fraudulent activities perpetrated by employees, customers, suppliers, agents, brokers or third-parties against the builder for personal gain (e.g. theft of physical, financial or information assets) expose the builder to financial loss.	
Health and Safety Risk	Failure to adequately promote and protect employees' and contractors' health and safety may result in injury or death and/ or future injury or death to personnel on the construction site.	
Interest Rate Risk	Inability to effectively manage the cost of capital may impair the financial viability of the projects or the builder.	
Natural Hazard Risk	Any act of nature (fire, water, wind, earthquake, temperature etc.) that may significantly impact the successful completion of the project.	
Pollution Risk	Accidental release of dangerous substances and/ or contaminants caused inadvertently in typical activities (e.g. Bulk fuel storage leakage) can cause environmental damage (e.g. Soil dispersion, sediment movement) and may result in significant financial responsibility.	
Products/ Service Failure Risk	Faulty or non-performing products, materials or services expose the builder to customer complaints, warranty claims, field repairs, returns, product liability claims, litigation and loss of revenues, market share and reputation.	

Key Risks To Consider	Insurable
Project Allocation Risk	Inability or accidental omission to transfer risk to a viable third party may result in unfavourable exposure to the builder.
Site Security and Safety Risk	Lack of site security and safety procedures at the construction site (toxic material handling, site visits, and uncontrolled work environments in remote locations) can cause unexpected injuries to employees, contractors and third parties.
Supply Chain Risk	Inability to acquire, transport or deploy required materials and equipment at the right time, location and cost (including property damage to suppliers delaying or preventing delivery) may result in delays and/ or additional costs.
Third Party Bodily Injury Risk	Inability to adequately anticipate, prevent, and mitigate against third party injury (other than contractors) may result in unacceptable obligations (trespassers, neighbours, etc).
Third Party Property Damage Risk	Damage to third party property at or on the construction site (contractor's plant and equipment) may result in financial damages and/ or construction delays.
Vandalism/ Terrorism Risk	Vandalism, terrorist acts, sabotage, demonstrations, or theft may result in unacceptable downtime or obligations.

Figure 5.2.3: Potentially Uninsurable Risks

Key Risks To Consider	Not Insurable
Change in Ground Conditions Risk	Unforeseen ground conditions may result in estimation risks and/ or delays in the pre/ post construction operations.
Contractor Performance Risk	Inadequate contractor (subcontractors of any tier) availability or performance, and/ or shortage of craft labour, may result in completion delays, sub-standard materials, unacceptable variations from plans and specs as well as cost overruns.
Estimation Risk	Inaccurate estimates with respect to project finance, timeliness, government legislation and surveying resulting in insufficient capital or project delays.
Human Resources Risk	Inability to attract, develop and retain competent people may inhibit the builder's ability to execute, manage and monitor key business activities.
Labour/ Union Relations Risk	Strikes and/ or other collective actions may disrupt operations and achievement of objectives. Limitations in the collective agreements may limit employer operational and human resource flexibility.
Legal and Regulatory Risk	Failure to comply with legal, statutory or environmental regulations may result in fines and penalties, delays in project, create unsafe project work conditions or negatively impact the builder's reputation.

Figure 5.2.1: Getting Started

€ **What types of insurance cover my key risks?**

There are some general insurance policies and special insurance policies that may address some of the key risks not covered by traditional insurance programs. Unfortunately, there is no insurance that will cover all risks.

Figure 5.2.4 details insurance policies available to builders.

Figure 5.2.4: Insurance Polices Available to Builders

Business Property Insurance

Purpose/ Overview	Designed for buildings, contents and equipment, this coverage will protect you from physical damage to your property caused directly by a peril.
Description	Covers "all risks" of direct physical damage including but not limited to fire, lightning, windstorm and hail, leakage from fire protective equipment, explosion, smoke, falling objects, impact from land or air vehicles, theft, vandalism and malicious damage.
Conditions/ Comments	An "all risks" policy does not actually insure "all risks" or "all property". The policy contains several exclusions. Here are a few examples of perils and property ***not*** covered by Property Insurance: Property not covered: ▪ Money, securities and precious metals ▪ Property in the course of transportation ▪ Land, water, crops and lawns ▪ Automobiles and machines licensed or used off premises Perils not covered: ▪ Collapse ▪ Wear and tear, deterioration, sudden or latent defects ▪ Delay, loss of use, loss of market or loss of occupancy ▪ Release or escape of pollutants The policy can be endorsed to add the perils of earthquake, flood and sewer back-up, subject to an increase in premium and higher deductibles.

Business Property Insurance

Variability Checklist

Is there a co-Insurance Clause? Some policies are "no-co", while others are "Stated Amount", or percentage of value such as 80 per cent and 90 per cent. The Valuation Clause will either be ACV (Actual Cash Value) or Replacement Cost. Many insurers add numerous additional coverage forms for lower limits at no additional cost known as "Multi-Perils Extensions". All policies differ in the number of extensions and the limits offered. Sublimits may exist for key coverages and should be reviewed carefully, especially when changing insurers.

Availability in 2004

Total Insurers:	81
Insurers Accepting Builders:	19

Builders Risk Insurance

Purpose/ Overview

Builders Risk also provides all perils property insurance coverage, but is designed specifically for structures ***in the course of construction***, such as a phase of new homes being built in a subdivision.

Description

It covers the same perils as All Risks Property Insurance, but may have some ***additional exclusions***, for example:

- Asbestos removal
- Pollution
- Boiler/ Machinery
- Normal settling
- Wear and tear
- Collapse (unless by insured peril)
- Water or flood damage
- Earthquake damage
- Testing and hot testing
- Mysterious disappearance

All but asbestos removal, wear and tear and mysterious disappearance can be added by endorsement for an additional premium.

Conditions/ Comments

The Builders Risk policy will include materials, fixtures, supplies and machinery to be ***incorporated into the work***. If necessary, coverage can be arranged for scaffolding, temporary structures, underground works, hardscaping or landscaping. Property typically not covered includes:

- Contractors tools and equipment
- Existing structures
- Land and water
- Bridges, dams and dikes

Property stored off premises or property in transit can be covered by a Builders Risk Policy, but usually at an additional premium and subject to a lower limit of coverage.

Builders Risk Insurance can be purchased for a specific project or on a blanket basis covering all projects undertaken in a specific year.

Builders Risk Insurance

Policies may or may not include Soft Costs in the limit. In addition, Transit and Off-Premises coverage should be reviewed to determine if they are within the policy limit, subject to a sublimit or not included at all.

Variability Checklist

Other additional coverages may include:

- Expediting Expenses
- Fire Department Service Charges
- Professional Fees
- Pollution Clean-up and Removal

Availability in 2004

Total Insurers: 12
Insurers Accepting Builders: 10

Contractors Equipment Floater

Purpose/ Overview

Although contractor's equipment, such as bobcats, tractors and cranes, are forms of property, they are not covered by an All Risks Property Policy. A special form of coverage known as a Contractor's Equipment Floater is designed to protect your equipment.

Description

Similar to All Risks Property and Builders Risk insurance, Contractor's Equipment covers you for all perils of direct physical loss, except for a list of exclusions. In addition, the policy may also provide coverage for newly acquired equipment and rental reimbursement, which will cover the cost of renting equipment to replace equipment damaged by a covered peril.

Conditions/ Comments

Some exclusions that appear in a Contractor's Equipment Floater are:

- Mechanical breakdown or failure
- Wear and tear, hidden or latent defect, freezing or overheating
- Unexplained disappearance
- Weight of the load exceeding registered lifting capacity
- Breaking through ice or subsidence of ice

Contractors Equipment Floater

Variability Checklist

There are numerous variables that will exist for this form of coverage. Below is a checklist of the most common elements:

- Co-Insurance Clause
- Valuation Clause
- Rental Equipment included in limit?
- Rental Equipment sublimit?

Additional Coverages, such as:

- Newly acquired equipment
- Equipment rented by the insured
- Equipment rented to the insured
- Loss of use
- Waiver of subrogation
- General average charges included
- Salvage charges included
- Annual reporting of owned/non-owned values

Availability in 2004

Total Insurers:	22
Insurers Accepting Builders:	10

Note

Insurers are split between expert Inland Marine insurers and non-expert Property insurers. Expert insurers tend to be more expensive, but understand claims situations better and settle losses more expediently.

Business Interruption Coverage

Purpose Overview

Business Interruption is a form of ***indirect*** or ***consequential*** damage protection. The main purpose of Business Interruption is to provide indemnity for loss of income resulting from the loss of property damaged by a peril covered by All Risks Property or Builders Risk insurance.

Description

Profits Form Business Interruption

This form of coverage will indemnify you for the cost of continuing to operate your business while it is shut down due to an insured loss. In addition to regular business costs, it provides the lost profit normally earned through operations and the additional expenses incurred as a result of the loss.

Extra Expense Form

Some builders would not lose revenue even if their office location was totally damaged due to a loss. This is because revenue is earned entirely off-premises. However, in such a circumstance, the Insured will incur many additional expenses to re-establish a new office and base of operations.

Extra expense provides indemnity for the increase in business expense necessary to establish a new office or a temporary office to be used while the original office is repaired or rebuilt.

Business Interruption Coverage

Profits Form Business Interruption

The indemnity period begins 24 to 48 hours after the loss (a time period deductible) and continues until you are back in full operation and have returned revenue to the same level it had been prior to the loss, for a maximum of 12 or 24 months, known as the indemnity period. You will continue to be indemnified even if the policy expires before the indemnity period expires. The loss, however, must have occurred during the policy period.

Extra Expense Form

Conditions/ Comments

Additional expenses can include office space, leasing telephone equipment, leasing computer equipment and additional increases in overhead expenses. The key is that it provides only the ***additional*** expense. For example:

- Assume a business pays $1,500 a month in rent to its landlord. Following a loss, the business had to rent temporary space in another building at a cost of $2,000 per month. Depending upon conditions in the original lease, the business may not have to pay any rent to the original landlord until the office has been fully restored. In that case, the increase in expense to the business is only $500 as the insured would have been paying $1,500 even if the loss did not occur. Extra expense will cover that additional $500.

Variability Checklist

Most forms in Canada are similar with respect to the Profits Form and Extra Expense Form. There are differences in the deductible, which ranges from 24 to 48 hours, the co-insurance clause which may be 50 per cent or 100 per cent and the indemnity period, ranging from 12 months to 24 months. Variable terms can be arranged with corresponding changes in premium.

Availability in 2004

Total Insurers:	81
Insurers Accepting Builders:	17

Note

Business Interruption is usually added by endorsement or packaged into an All Perils Property Policy.

Builders Risk Soft Costs Coverage

Purpose/ Overview

This form of coverage is also a ***consequential loss*** and is usually added by endorsement to the Builders' Risk policy. It will extend the policy to cover financial losses occurring due to delayed project completion resulting from a peril insured by the Builder's Risk policy. Soft Costs are generally used to describe construction expenses not directly related to brick and mortar.

Builders Risk Soft Costs Coverage

Description

Soft Costs can include loss of earnings such as rental income resulting from the delay in completion of the project. Here are some examples of Soft Costs:

- Interest expense on money borrowed to finance construction or reconstruction
- Loan fees and other time charges necessitated by the negotiation of a new construction loan or changes to the existing loan
- Real estate and property taxes
- Fees for architects and engineers
- Insurance premiums for project coverage
- Other professional fees such legal and accounting

The Soft Costs endorsement will be subject to some key exclusions that help define coverage and restrict it to losses ultimately resulting from an insured peril causing direct damage. The following exclusions are common:

- Improvements necessary to correct construction deficiencies
- Delay in opening caused by adverse weather (unless the adverse weather first caused a direct damage loss)
- Penalties for not completing the project on time
- Delay beyond the reasonable time it should have taken to reconstruct the project following the loss that caused the delay

Conditions/ Comments

When Soft Costs are included in coverage, the limit of coverage chosen must be the full value of all hard and soft costs of the project.

There are two important conditions for coverage to apply; First, the delay in completion must be the result of a direct loss due to an insured peril. The second condition is that the loss must be "quantifiable". The deductible is usually stated as a waiting period, similar to Profits Form coverage, which may be up to 72 hours. The indemnity period is typically 12 months, but 24 months or longer is available. The indemnity period applies even if the policy expires before the indemnity period, provided the loss occurred during the policy period.

Variability Checklist

The key is determining if Soft Costs Coverage is specifically declared as covered. If so, the questions below must be answered. Each insurer will have a different approach to Soft Costs.

- Included within the limit?
- Included in addition to the limit?
- Included as a sublimit?

Availability in 2004

Total Insurers:	12
Insurers Accepting Builders:	9

Note

Soft Costs Coverage is usually packaged into an All Perils Builders Risk policy. Not all insurers that offer Builders Risk will offer Soft Cost coverage to all builders or all projects.

Property in Transit

Purpose/ Overview

All Risk Property Insurance will exclude or severely limit coverage for property while in transit from one location to another. Property in Transit will cover goods while in the course of transportation from the moment the property leaves the initial point of shipment until it is delivered to its destination. This includes property held temporarily (usually defined as 30 days or less) by shippers or receivers.

Description

The policy also covers losses caused by direct damage from perils not otherwise excluded. As with All Risks Property Insurance, this policy states a list of property and perils that are not covered. The next box displays a sampling of ***excluded*** property and perils.

Conditions/ Comments

Property not covered

- Money, securities, precious stones
- Shipment by mail or parcel post
- Waterborne shipments
- Property you accept while acting as a common or contract carrier, broker or freight forwarder

Perils not covered

- Improper preparation for shipment
- Inadequate packing
- Insecure stowage when not stowed by the carrier
- Unauthorized instructions to transfer the property to any person or place

Property in Transit is usually added to an All Risks Property policy or a Builders Risk policy and subject to a separate limit of coverage for an additional premium. A separate Transit policy can also be purchased if desired, but that would usually increase the minimum premium required by the insurer.

Variability Checklist

Property in Transit implies that there ***is no coverage for waterborne shipments*** as noted in the exclusions. If transportation over seas or oceans is necessary, a Marine Cargo policy will be required.

If coverage is attached to a Property policy, it is important to check the sublimit. Most policies offer some level of coverage, but usually very small limits. Transportation over water may be excluded or included. The Territory of Coverage is a key condition and will vary. Some coverage is for Canada only, some coverage is for Canada and the U.S.A. Finally, policies sometimes require a Locked Vehicle Warranty, which is an important constraint upon coverage.

Availability in 2004

Total Insurers:	81
Insurers Accepting Builders:	15

Property in Transit

This coverage is provided in a variety of ways: 1) as a "stand alone" policy offered by specialty and inland marine insurers; 2) packaged into the All Perils Property Policy and offered by most property insurers; and 3) provided as a sub-limit to the total limit of an All Perils Builders Risk Policy.

Note

Version No. 3 is most likely to be encountered by Builders. This keeps the availability of such coverage in line with the availability of All Perils Builders Risk Policies for builders.

Crime Insurance

Purpose/ Overview

A Crime Policy provides coverage for five key exposure areas – Employee Dishonesty, Loss Inside the Premises, Loss Outside the Premises, Money Orders and Counterfeit Paper Currency and Depositor's Forgery. This policy is known as a "Comprehensive Dishonesty, Destruction or Disappearance" policy, or "3-D" for short.

Description

Employee Dishonesty

Known as Insuring Agreement I, this section provides coverage when an employee steals money, securities or other property from you. There are two coverage options: Form A provides a blanket limit of coverage for all employees with a twelve month reporting period. Form B provides a limit of coverage per employee and is subject to a twenty-four month reporting period.

Loss Inside the Premises

Known as Insuring Agreement II, this covers loss of money and securities that disappear or are destroyed from within your premises. This is a broad form of coverage. Where other forms of insurance for money and securities only cover burglary or robbery, this form will cover theft and disappearance.

Loss Outside the Premises

This is identical to Loss Inside the Premises, but covers money and securities that are destroyed or disappear from outside your premises. It is Insuring Agreement III. A typical example is an employee that is robbed while on the way to make a deposit at the bank.

Money Orders and Counterfeit Paper Currency

This section will provide coverage when you have accepted fraudulent money orders or counterfeit currency in payment of your goods or services. It is Insuring Agreement IV.

Depositor's Forgery

Insuring Agreement V provides coverage when your cheques have been tampered with. It does not provide coverage when you accept a fraudulent cheque. For example, if you signed a cheque made out to a supplier and it was later tampered with so that the payee was altered or the amount of the cheque was altered, you would be covered for your loss.

Crime Insurance

Employee Dishonesty

The key benefit of this coverage is that you do not have to prove which employee committed the theft, only that an employee or combination of employees committed the act. Under Form A, the limit of coverage applies for the total amount of the loss, whereas the limit for Form B applies based upon the employee's position. Consider the following example:

- An employer discovers that $100,000 has been embezzled from the company. It is learned that the theft was an equal combination of three employees – a sales manager, controller and accounting clerk.
- If the employer was covered by Form A with a limit of $100,000, the entire loss will be covered subject to the policy conditions and deductible.

Conditions/ Comments

- If the employer was covered by Form B with a limit of $25,000 per position, only $75,000 of the loss would be covered. This is because each position has a limit of $25,000, yet each employee in the covered position stole more than $25,000.

The key is choosing the limits of coverage. Either form will provide adequate coverage if an appropriate limit of coverage is chosen. It is easier to determine limits using Form A than it is using Form B, but Form B has a longer reporting period.

Loss Inside the Premises

The key is that if the loss is due to disappearance, the proof required must be sufficient to show that a theft occurred, not simply an error in accounting.

Other Coverage

There are some other coverages that can be added to a Crime Policy, including electronic fraud, forgery of cheques received, credit card fraud and extortion.

All Crime Policies will offer the five insuring agreements. There is some variability in the policy wording, but coverage is generally consistent from insurer to insurer. Following is a quick check-list to consider:

- How many Insuring Agreements are offered?
- Check for Warranties
- Territory of Coverage
- Indemnity Period for Form A Employee Dishonesty
- Definition of Theft

Variability Checklist

Availability of Additional Coverages, such as:

- Credit Card Forgery
- Incoming Cheque Forgery
- Electronic Funds Transfer Forgery
- Extortion

Crime Insurance

Availability in 2004	Total Insurers: 40 Insurers Accepting Builders: 14
Note	Crime Insurance is widely available at lower limits, for example Employee Dishonesty limits of $100,000 or less and other coverages at $50,000 or less. Often, these limits are packaged into an All Risks Property Policy or Multi-Peril Policy. For higher limits, the market is restricted to specialty insurers. There are far fewer of these insurers. Builders do not present a particularly hazardous exposure to crime insurers and therefore options are not as limited.

Commercial General Liability Insurance

Purpose/ Overview	Also known in short as CGL or GL, this form of coverage indemnifies you when you are responsible to pay damages to another person or business resulting from your legal liability for causing property damage or bodily injury, including death, to that other person or business.
Description	Not only does it provide coverage for the damages you will have to pay to third parties, but it also provides coverage for your defence costs. A CGL policy will provide defence costs ***in addition*** to the limit of liability. ▪ For example, assume you have a $1,000,000 CGL policy. You are brought to court by a third party alleging you are responsible for $1,000,000 in damages to their property because of a fire you started with a welding torch. Assume also that you incur $125,000 in legal expenses defending yourself from this action. If you were found to be liable for the alleged damages, your insurer would pay the full $1,000,000 awarded by the court and the $125,000 in legal expenses to defend the action. It is important to note that your insurer has the right under your policy to manage your claim and your defence as it has an obvious interest in a fair, expedient and economical result.
Conditions/ Comments	There are many other coverage forms that are available by adding them to the CGL policy through the use of endorsements.
Variability Checklist	There are a number of key variables to review within a CGL policy. Here is a list of items to consider: Is there a General Aggregate Limit of Liability? What multiple of the Single Limit is the Aggregate Limit? Check extent of the Pollution Exclusion Is Contractual Liability included? If Contractual Liability is included, is it blanket or scheduled contracts only? Check for a Wrap-up Liability Exclusion Additional Coverages, such as: ▪ Personal Injury Liability ▪ Advertising Liability
Availability in 2004	Total Insurers: 80 Insurers Accepting Builders: 22

Contractual Liability

Purpose/ Overview

The basic CGL policy does not cover liability assumed in a contract, with the exception of elevators, lease agreements and sidetrack agreements. However, a contractor such as a builder signs contracts everyday, often assuming liabilities that would normally be another person's responsibility. This is assumed "Contractual Liability".

Description

For this reason, Contractual Liability is a coverage that should be endorsed onto your policy. It will provide coverage for liabilities you assume when entering into a contract with another party. As this is still part of the CGL policy, the damages that create your liability must still be property damage or bodily injury to a third party.

- When signing a contract with the developer of a subdivision, you may be asked to accept the liability created by any subcontractors you hire to do a portion of the work. Under normal civil law, you are not liable for the acts of independent contractors. However, by virtue of the contract you sign with the owner, you are now liable for the acts of your subcontractors. You need contractual liability to cover this situation.

Conditions/ Comments

If the coverage is not provided as "Blanket Contractual" it most likely means the builder will have to schedule all of its contracts with the insurer. This requirement allows insurers to read all contracts and make underwriting decisions regarding corresponding coverage. This is a key condition and builders should ensure Blanket Contractual coverage is provided in order to reduce the administrative burden and margin for error within their policies.

Variability Checklist

Standard coverage is provided only for Insured Contracts as defined in the policy, usually property leases, elevator contracts and sidetrack agreements. Other options available are Scheduled Contracts in which specific agreements are scheduled with the insurer to obtain coverage. The final variable is Blanket Contractual, which usually provides coverage for all contracts entered into by the Insured. It is important to note that since this form is attached to a CGL policy, coverage is for bodily injury and property damage arising from said contractual liability, not pure financial loss or breach of contract suits.

Availability in 2004

Total Insurers:	80
Insurers Accepting Builders:	15

Tenants Legal Liability

Purpose/ Overview

A key exclusion in a CGL policy is that it will not cover damage you cause to another person's property while that property is in your "care, custody or control". When you lease space for your business, you have care, custody and control of the leased premises.

Tenants Legal Liability

However, those premises are owned by somebody else – the building owner. Therefore, any property damage for which you are liable while occupying that space is not covered by the CGL policy. By adding Tenants Legal Liability endorsement to the policy, you are given coverage for leased premises in your care custody and control.

Description

- Assume you rent office space in a ten-storey commercial office building. Improper wiring of your computer system results in a fire. The fire causes damage to the part of the building occupied by you. Your CGL policy will not cover this damage because the building was property in your care, custody and control at the time of the loss. Your Tenants Legal Liability endorsement will respond to provide the coverage you need and protect your liability to the building owner.

Conditions/ Comments

Choosing a limit of coverage for Tenants Legal Liability can be difficult. You need to estimate the value of the space you occupy. A good rule of thumb is to purchase a limit equal to your CGL limit. However, in some cases that may not be enough. You should discuss this with your broker to determine the limit that is right for you.

Variability

The main variable is the extent of coverage. It will either be Broad Form or Named Perils. There may also be a sublimit for less than the limit of Commercial General Liability.

Availability in 2004

Total Insurers:	80
Insurers Accepting Builders:	22

Non-Owned Automobile Liability

Purpose/ Overview

Although this coverage can be provided by a separate policy, it is most commonly added by endorsement to a CGL policy. It exists because of a principal of law known as "Master and Servant". Under the common law, an employer is responsible for the negligent or careless acts of its employees, even if the employees have exceeded their authority or disobeyed direct orders of the employer.

This theory of law extends to automobiles as well. When your employee uses his or her own vehicle for your business and causes property damage or bodily injury to a third party, you may be held liable.

Description

However, your CGL policy does not cover liability arising from licensed automobiles and automobiles used off premises. Non-Owned Automobile Liability is therefore designed to protect your liability for losses caused by employees while using non-owned vehicles in connection with your business. You should always purchase a limit that is equal to your limit of CGL coverage.

Conditions/ Comments

Non-Owned Automobile will not provide coverage for physical damage to the non-owned automobile itself as that is property in your care, custody or control. For example, a rented automobile is a non-owned automobile, but the rental company is transferring responsibility for damage to the vehicle to you, the renter. It is important to add Endorsement No. 94 – Legal Liability for Damage to Non-Owned Automobiles to the policy. This will cover you for damage caused to the non-owned automobile while in your care, custody or control.

Non-Owned Automobile Liability

This form of coverage is provincially regulated. All non-owned automobile policies in a given province have a no variance in coverage form. There are some slight differences from province to province.

Variability Checklist

The key variable for the buyer of this policy is the limit of coverage and the deductible. The limit should be sufficient to cover a total loss to the most expensive hired auto the insured may have control and custody of during the year. The deductible should be similar to the deductible the insured carries for its owned automobiles.

Be mindful of policies that include endorsements restricting what type of non-owned automobiles will be covered by the policy.

Availability in 2004

Total Insurers:	63
Insurers Accepting Builders:	22

Note

Normally, any form of automobile insurance is available to all classes of business in Canada. As non-owned automobile insurance is normally packaged into a CGL policy, and very few insurers provide "stand-alone" non-owned automobile policies, the availability of this coverage for builders is equal to the availability of CGL.

Employers Liability Insurance

Purpose/ Overview

In all jurisdictions in Canada you are required to purchase Workers Compensation insurance from a provincially-owned corporation. In Ontario for example, the corporation is known as the WSIB – Workplace Safety and Insurance Board. It is designed to cover your liability for injury your employees incur while working for you. This is a legislated form of government insurance that you must buy.

There are some employees in some jurisdictions that are exempt from Workers Compensation legislation, for example office workers in Ontario. If you have not purchased workers compensation coverage for these employees, you have no protection in the event they incur bodily injuries or death while engaged in your business. For this reason, you need Employers Liability coverage.

Description

Employers Liability provides coverage for your liability towards all employees that are not otherwise covered by workers compensation, or who may be exempt from workers compensation laws or have the ability to opt out of the provincial program at the time of a loss.

Conditions/ Comments

Even if you carry Workers Compensation for all employees, it is wise to purchase this coverage as it will act as a contingent coverage at the very minimum. Most insurers charge a very small premium or no premium at all.

Variability Checklist

Some forms provide only "Contingent" Employers Liability" while others offer complete Employers Liability. All policies will exclude Employers Liability for employees in the U.S.A.

Availability in 2004

Total Insurers:	80
Insurers Accepting Builders:	19

Note

This coverage is normally packaged into a CGL policy and therefore its availability to builders is proportional to the availability of CGL.

Owners and Contractors Protective Liability (OCPL)

This form of coverage can be purchased as a stand alone policy, or added to a CGL policy by endorsement. When it is added to a CGL policy, it is provided on an annual basis. When arranged as a stand alone policy, it is usually providing coverage for a specific project.

Purpose/ Overview	The purpose of Owners and Contractors Protective Liability is to ensure the availability of project-specific, unimpaired insurance to protect against certain risks. Coverage applies only to the owner's liability from operations performed by a contractor and the owner's acts in connection with the general supervision of the work. The policy does not cover the owner's sole negligence for activities in connection with the project. The owner would rely on its own CGL policy for that coverage.
Description	Owner's and Contractor's Protective Liability will provide a policy for a specifically-named project. All losses assigning liability to the owner resulting from operations of the contractors will be covered by that policy. This ensures that there is dedicated coverage limits for this project, protecting the owner's CGL limits and claims history. The cost of the policy is usually transferred to the contractor, which in turn builds it into the project cost.
Conditions/ Comments	A builder may hire many contractors to perform work on its behalf. Although the owner has its own CGL policy, claims assigning liability to the owner due to the operations of contractors may either erode the aggregate limit of the CGL coverage, or simply affect the claims performance of the CGL policy resulting in higher premium costs. As a builder, you may think, "why should my operating costs be increased or my insurance reduced due to the negligence of others?"
Variability Checklist	The key issue is whether or not coverage is subject to a sublimit within the policy. Otherwise, forms are generally consistent from insurer to insurer when endorsed to a CGL policy.
Availability in 2004	Total Insurers: 8 Insurers Accepting Builders: 8

Excess Liability Coverage

Purpose/ Overview	It is prudent to ensure your business has adequate limits of Commercial General Liability insurance. In consultation with your broker, you may decide that you require a $10,000,000 limit of liability to properly protect your business from loss. For reasons such as risk tolerance, capacity to accept risk and cost/ accessibility to reinsurance, many insurers may not be willing or able to provide more than $2,000,000 or $5,000,000 of limits.
Description	Excess Liability insurance will provide the higher limits of coverage you require. The term "excess" simply means higher limits – it does not increase your scope of coverage. All of the conditions and exclusions that exist in your CGL policy will also exist in your excess policy. This is known as "follow form" protection – the form of the excess policy follows the form of the CGL or "underlying" policies.

Excess Liability Coverage

The Excess policy does not "drop down". It is written on the basis that you have a certain amount of "underlying coverage". For example, if you have an excess policy that notes you have an underlying CGL limit of $2,000,000, your excess policy will only respond when the $2,000,000 limit has been exhausted. For example:

Conditions/ Comments

- Assume you have a $2,000,000 CGL policy and an $8,000,000 excess policy. The excess policy requires that you maintain $2,000,000 CGL. If you reduced your CGL limit to $1,000,000 without the agreement of your excess policy, you do not have $8,000,000 excess of $1,000,000, you still have $8,000,000 excess of $2,000,000. If you have a loss large enough to claim against your excess policy, you will have to cover the difference between your $1,000,000 CGL limit and your $2,000,000 underlying insurance requirement.

An excess policy can be written in excess of most CGL and Automobile Liability forms, including Non-Owned Automobile Liability, Contractual Liability, Employers Liability and Workers Compensation.

Variability Checklist

The form itself is fairly consistent. However, since the form follows the coverage offered by the underlying policy, it does vary in accordance with the said underlying policy. Each insurer will add its own series of restricting endorsements which further vary the coverage. The policy should explicitly provide the Excess Non-Owned Automobile forms for each province. Insurers will vary in their ability to provide excess coverage over U.S.A. and international policies.

Availability in 2004

Total Insurers:	80
Insurers Accepting Builders:	20

Note

The key to availability for Excess Liability is the limit of coverage. Every insurer will have its own specific capacity to offer excess limits. Most insurers can offer up to $10,000,000 in limits. Other insurers can offer as high as $25,000,000 or even $50,000,000 in rare cases. If you determine your business requires total liability limits of $25,000,000 or $50,000,000 you will most likely need several insurers providing several Excess policies to reach that limit.

Umbrella Liability Policy

Purpose/ Overview

An Umbrella policy is very similar to an Excess policy. It provides higher limits of coverage in excess of the underlying limits. The key to an Umbrella policy is that it will drop down to cover a reduction in underlying limits or even a loss that is not otherwise covered by an underlying policy.

Description

An Umbrella Liability policy is very broad and is usually defined by its exclusions. Every Umbrella policy is different. Some may exclude only a few forms of liability, where others may exclude many forms. Be sure to ask your broker to explain all of the exclusions in your Umbrella Liability policy and be sure you understand.

Conditions/ Comments

It is very important that you provide your broker with a complete and accurate description of your business to ensure your Umbrella policy does not contain any exclusion that eliminates needed coverage.

Umbrella Liability Policy

Variability Checklist

An Umbrella policy varies in that it comes in two forms – "single column" and "dual column" coverage. The singe column policy is similar to Excess Liability Coverage in that it follows the form of the underlying policies, but it may also drop down. The dual column approach separates coverage into "Follow Form Excess Liability" in column A and "Drop Down Coverage" in column B. Although dual column coverage appears to be more comprehensive, be mindful of the exclusions added to the policy which may restrict the scope of drop down coverage available. Regardless of the approach, all policies will include an annual aggregate limit of liability.

Availability in 2004

Total Insurers:	80
Insurers Accepting Builders:	18

Note

The key to availability for Umbrella Liability is the limit of coverage. Every insurer will have its own specific capacity to offer excess limits. Most insurers can offer only up to $10,000,000 in limits. Other insurers can offer as high as $25,000,000 or even $50,000,000 in rare cases. If you determine your business requires total liability limits of $25,000,000 or $50,000,000 you will most likely need several insurers providing several Excess policies to reach that limit.

Wrap-up General Liability Coverage

Wrap-up is project-specific general liability covering all participants in the project, including the owner, contractor, subcontractor, manager, consultant and architects & engineers, regardless of the ***number*** of participants.

Purpose/ Overview

It is broad, uniform coverage dedicated solely to the specific project with a policy period that is equal to the duration of construction. The language defining "Named Insured" is very broad to ensure coverage for every participant without specifically naming each one.

Wrap-up General Liability Coverage

A wrap-up policy is purchased by an owner because it provides uniform coverage to all participants. It ensures all participants are covered to the same limit of coverage. Because it is project-specific, it also ensures that losses occurring at other projects do not erode the limit of coverage available at the specified project. Take this example:

- As a builder, you may have several contractors/subcontractors working at your site. You may want all contractors/subcontractors to carry $5,000,000 of liability coverage. However, each will have a different limit, some conforming to your requirements and some not. In addition, even if a contractor/subcontractor has $5,000,000 coverage, you cannot be assured that it has not caused a loss at another project site that will erode that $5,000,000 and leave less coverage available at your site.

- By using a wrap-up policy, you can ensure all your contractors/subcontractors have $5,000,000 of coverage and that coverage cannot be eroded by losses caused at other sites. In addition, you no longer have the administrative burden of collecting and verifying certificates of insurance from your contractors/subcontractors since you now know that they are covered by the wrap-up policy.

Description

An added benefit of a wrap-up policy is that it will provide an extension period for losses resulting from the completed operations of contractors/subcontractors. A wrap-up will usually provide an additional period of 24 months after the expiration of the policy to cover "completed operations" losses occurring during that time.

As site owner, the key benefit is that you do not have to worry about whether or not your contractors/subcontractors continue to carry insurance, at the required limit, after the job has been completed. In addition, "completed operations" coverage is not encumbered by the aggregate limit applying to the contractors'/subcontractors' own policies, although it is subject to the wrap-up policy aggregate. The wrap-up policy eliminates several insurance problems surrounding a construction project, such as:

- Difference in wordings
- Uninsured participants
- Mid-project renewals
- Cancelled policies
- Mid-project changes
- Varying limits of coverage
- Multiple deductibles
- Expired policies
- Excessive lawsuits
- Collection of certificates

Choosing a limit must be done carefully. The builder has to consider the total number of participants on the project, the length of the project and type of work being done. A limit that appears very high may ultimately be insufficient. Think big!

Conditions/ Comments

Most likely the Wrap-up will be equally as comprehensive or more comprehensive than your CGL policy. However, there is no guarantee. It is important when being covered by a wrap-up policy to ensure your CGL policy does not have a Wrap-up Projects Exclusion.

Wrap-up General Liability Coverage

Variability Checklist

Check your CGL policy to ensure there are no wrap-up exclusions. There are several insurers now introducing wrap-up exclusions to CGL policies issued to contractors, including builders.

At first glance, this appears okay as the wrap-up will cover you for the specific project. However, there are gaps created by the wrap-up exclusion and it is therefore not recommended.

Availability in 2004

Total Insurers:	25
Insurers Accepting Builders:	9

Contractors Professional Liability

Purpose/ Overview

Also referred to as errors and omissions (E&O) coverage, professional liability insurance protects against damages from professional services performed by contractors such as construction management and design-build. As a builder, you may have these exposures to consider.

Description

Coverage is provided on a Claims-Made form and is subject to many exclusions that define its scope to indemnify you for your legal liability for damages resulting from an actual or alleged negligent act, error or omission. Unlike a CGL policy, the defence costs of professional liability are included in the policy limit. It is therefore very important to choose your limit wisely. Consult with your broker.

Contractors Professional Liability

A Contractors' Professional Liability policy can be purchased on an annual basis to cover all projects the builder works on during the year, or it can be purchased on a project-specific basis. The benefit of a project-specific policy is that the limits are dedicated to actual project and cannot be eroded by losses occurring at other projects. The advantage of an annual policy is that all operations are covered; it is generally more cost effective and provides more options when project-specific coverage is needed due to a contractual obligation.

Typically, a builder will purchase an annual policy to cover its basic operations. For certain key projects, depending upon the size, scope or contractual requirements, an additional project-specific policy will be purchased to allocate limits specifically for that project, or increase the available limits and add additional insureds.

Conditions/ Comments

A builder faces professional liability exposures for a variety of different aspects of its work, some of which are listed here:

- Hiring staff architects or engineers for design work
- Hiring design firms as consultants or using them for design-build projects and assuming responsibility for their work
- Providing construction management services
- Performing construction inspection services for the work of other contractors
- Loaning employees for a fee
- Advising on project financing

Homebuilding is generally a design-build delivery system and therefore this coverage is very important to builders.

Variability Checklist

All policies are worded slightly differently, but the resulting coverage scope is actually quite similar. All policies have extensive exclusions, which are necessary to carve out the exact form of liability provided. The buyer should read and understand all exclusions with the help of its broker.

Availability in 2004

Total Insurers: 8

Insurers Accepting Builders: 8

Note

Single project policies are in very limited supply with as little as one or two insurers in any given jurisdiction.

Contractors Pollution Liability (CPL)

Purpose/ Overview

A special pollution liability policy is required because most CGL policies either exclude pollution liability completely, known as the "absolute exclusion" or provide very limited coverage that would include "hostile fire" or "sudden and accidental" losses. A hostile fire is a fire that escapes from its intended containment area. A sudden and accident loss must be discovered within 120 days of its occurrence and reported to insurers within 120 days of its discovery. Although this seems like a long time, it passes very quickly.

Contractors Pollution Liability (CPL)

Description	This policy will provide defence and indemnity coverage for bodily injury, property damage and environmental clean-up costs for pollution conditions arising from the builder's operations. The policy will respond to sudden and gradual pollution events as well as cleanup costs on and off the worksite. The policy can be purchased on an annual blanket basis or a project-specific basis and may be issued on an occurrence or claims-made form.
Conditions/ Comments	Some operations make it obvious that a CPL policy should be procured. A builder performing environmental remediation work is a good example. Consider the many other environmental exposures on construction projects: ▪ Construction debris containing hazardous materials (paint, tar, etc...) ▪ Contaminants from historical use of the property or neighbouring premises ▪ Inadequate containment and loading/ unloading areas ▪ Soil/ groundwater contamination ▪ Lead, asbestos, PCB's and radioactive contamination ▪ Midnight dumping on vacant land parcels ▪ Sick building syndrome (carbon monoxide or bacterial air releasing from HVAC systems) ▪ Disposal of hazardous waste generated on site ▪ Air emissions causing offensive odours ▪ Spills of chemicals and fuels ▪ Lubricant oils and other fluids from field equipment
Variability Checklist	The key variability is coverage offered on an Occurrence Form or a Claims Made Form. The latter is traditional, but the former is becoming more available. If your policy is a Claims Made Form, check the extent of the Retroactive Date.
Availability in 2004	Total Insurers: 10 Insurers Accepting Builders: 10
Note	At least two insurers have introduced combined Contractors Pollution, Contractors Professional and CGL policies. The key issue with this package is that coverage for each insuring section is not necessarily as broad as it would be if three separate policies were purchased. For example, the CGL may not include non-owned automobile or employer's liability. In addition, the CGL may be issued on a Claims-Made basis. Be sure to understand the full terms and conditions of your policy before purchasing coverage.

Special Construction Insurance Coverage

Delayed Completion/ Force Majeure/ Combined/ Inherent Defects

Purpose/ Overview	As described earlier, Soft Costs coverage only indemnifies where the delay was the result of a direct loss caused by an insured peril. As referenced in the Phase I Risk Table, a project is nonetheless exposed to delay resulting from non-physical and financial perils. For years, these types of perils were considered uninsurable business risks. There are new coverage forms designed to address some of the non-physical risks and financial risks exposed by builders.
Availability	These forms are currently subject to ***very limited*** availability. There are few insurers that will offer coverage and then only in rare circumstances. As the insurance market continues to stabilize, we expect these forms will become available. There is also the option of looking to other markets, namely London, Barbados and Bermuda to arrange coverage.

1. Delayed Completion and Liquidated Damages

Delayed Completion is for Owners and Liquidated Damages is for Contractors.

Purpose/ Overview	Each of these forms of coverage provide protection against financial loss from a delay in the project completion resulting from ***specified causes***, such as failure of a participant to perform within the construction schedule. In the case of a builder, where you are the owner and the contractor, coverage for your own failure to meet project schedule is not available. However, protection against subcontractors is possible.
Conditions/ Comments	The Conditions include an acceptable engineering review of the project by an independent engineering firm and contract review by an independent legal firm. The premium will be expensive, ranging from 3 per cent to 7 per cent of the insurance limits. The deductible will be a waiting period in the range of 45 to 90 days ***after*** the contract completion date, as the whole purpose of coverage is to protect against costs incurred by delayed completion.

2. Force Majeure Insurance

Purpose/ Overview

This policy, issued on behalf of the owner, will protect the owner against loss resulting from delayed completion due to causes beyond the control of the owner. Typical examples of such losses are:

- Destruction or damage occurring off-site that effects construction.
- Strikes and labour disputes.
- Changes to building safety codes or emissions standards occurring during the contract period.
- Any other cause that is beyond the control of all participants such as adverse weather conditions and foreign trade embargo.

In other words, this coverage will only apply for an ***excusable delay***. Where an excusable delay occurs, the owner has no recourse against the builder and requires protection in some other form, namely this policy.

Conditions/ Comments

The Conditions include an acceptable engineering review of the project by an independent engineering firm and contract review by an independent legal firm. The premium will be expensive, ranging from 3 per cent to 7 per cent of the insurance limits. The deductible will be a waiting period in the range of 45 to 90 days after the contract completion date.

3. Combined Delayed Completion/ Force Majeure

Purpose/ Overview

Determining whether the cause of a delay was excusable or inexcusable can sometimes be a difficult job resulting in disputes between owners and builders. It is a key point because the builder will not be liable for excusable delays. A dispute may take a long time to settle, during which time the owner must service the construction debt, which becomes more and more costly as the project is delayed.

The owner can relieve itself of this worry through the purchase of a combined policy. Under such an arrangement, the insurer agrees to indemnify the owner for losses caused by specified delays and then assumes subrogation rights against the builder alleged to be the cause of the delay under the liquidated damages clause of the builder.

This allows the owner to carry on with the progress of the project without the need to first settle the dispute and increase the delay. If it is ultimately determined that the delay was inexcusable, the insurer will recover the liquidated damages from the builder.

Conditions/ Comments

The Conditions include an acceptable engineering review of the project by an independent engineering firm and contract review by an independent legal firm. The premium will be expensive, ranging from 3 per cent to 7 per cent of the insurance limits. The deductible will be a waiting period in the range of 45 to 90 days after the contract completion date.

4. Inherent Defects Insurance (IDI)

Purpose/ Overview

Construction defect litigation is a growing concern in Canada following the multitude of high award mass torts in the United States. Every province has a statutory period in which a builder warrants that its product is constructed in a workmanlike manner, free from material defects, fit for habitation, constructed in accordance with the Building Code, and also free of major structural defects.

In Ontario, for example, the warranty applies against major structural defects for seven years from the purchase of the home and for most other defects for one year from the purchase of the home. Most builders, contractors and developers assume this exposure as the necessary risk of doing business.

Inherent Defects Insurance (IDI) will transfer this risk to an insurer. The policy will respond to losses resulting from defects by faulty design, engineering or workmanship. Coverage is applicable if the faulty design, engineering or workmanship causes physical damage, collapse or the threat of collapse. The policy applies to structural works, defined as all internal and external load-bearing members or material essential to building stability or strength. This could include foundations, columns, walls, floors, beams and roofs.

Conditions/ Comments

IDI is first party insurance that responds to a loss no matter which party was at fault for the defect. The insurer will maintain rights of subrogation against a party whose work was the cause of the defect, with the exception of the Named Insured.

Unfortunately, at present in 2004, this coverage is mostly unavailable to the average builder. However, market conditions are changing. We recommend you raise the issue with your broker and survey the market on a regular basis.

5. Contractors/ Subcontractors Default Insurance

Purpose/ Overview

This coverage is to protect the owner/ builder against the default of performance by subcontractors and suppliers for specified insured contracts and purchase orders.

A key benefit is that the actual default triggers coverage. The insurer will not question the legality of the fault, leaving it up to the courts to decide.

The policy will cover the cost of completing the subcontractor's or supplier's obligations, correcting defective or non-conforming work, legal and professional expenses caused by the default and soft costs including liquidated damages, accelerations and extended overheads.

Limits are per occurrence and in the aggregate. There is a single deductible, aggregate deductible and co-payment clause.

5. Contractors/ Subcontractors Default Insurance

Conditions/ Comments

The policy is conditional upon the creditworthiness and work performance history of subcontractors or suppliers. There must be a default in order to trigger coverage.

The policy must be purchased before a default. In other words, previously or existing defaulted subcontractors and suppliers are not covered.

Another key condition is that the Insured cannot contractually pass on the responsibility for paying deductibles and co-payments. This is important because the whole purpose of the deductibles and co-payments are to ensure the Insured has "skin in the game" and will take all actions necessary to prevent default and prevent losses.

Automobile Insurance

Purpose/ Overview

Available in both the competitive and government-owned markets in Canada. Although the systems of automobile insurance vary from province to province, all automobile insurance protects against three basic segments of risk – Liability to third parties for bodily injury and property damage, accident and life insurance for the automobile occupants and physical damage to the insured vehicle.

Automobile Insurance

Ontario

The Ontario system is a threshold no-fault system. All bodily injury losses in Ontario are adjusted and settled by a person's own insurer regardless of fault unless the injuries surpass a statutory standard of serious and permanent impairment or death, in which case the injured party can pursue damages under tort law. Third party property damages continue to be settled under a tort system provided the damaged property is not another automobile. As part of the overall no-fault program, all physical damage losses in Ontario are paid by direct compensation from the insurer of the damaged vehicle regardless of fault. The claimant will be responsible for a deductible, however, in the proportion of his or her fault in the accident.

Atlantic Canada, Alberta and the Territories

All provinces and territories in this category operate tort automobile insurance systems in varying degrees. Insurance policies in these jurisdictions are divided primarily into three sections: A) Third Party Liability, B) Accident Benefits and C) Physical Damage. All third party liability loss, whether bodily injury or property damage, are settled under tort law principals. The same applies for physical damage. The loss in any accident is fully covered by the at-fault automobile's insurer through a combination of Third Party Liability for the not at-fault vehicle and Physical Damage for the at-fault vehicle.

Description

British Columbia, Saskatchewan and Manitoba

Each of these provinces operates government-owned no-fault automobile insurance systems. There is one insurer providing the provincial compulsory coverage - in B.C., the Insurance Corporation of British Columbia (ICBC); in Saskatchewan, Saskatchewan General Insurance (SGI); and in Manitoba, Manitoba Public Insurance Corporation (MPIC). All third party losses and physical damage losses are settled through the government insurer on a no-fault basis.

Quebec

In Quebec, the system is completely no-fault, but split between private insurers and the Quebec government. The Society de l'Assurance Automobile du Quebec provides all bodily injury coverage for residents of the province. There is no threshold system and no private company program for accident benefits as there is in Ontario. Physical damage losses are owned by private insurers and adjusted on a direct compensation, no-fault program.

Third party property damage losses are covered by private insurers on a tort basis provided the damaged property is not another automobile.

Automobile Insurance

Conditions/ Comments

There are many conditions applicable to automobile insurance. The most important condition is to declare all aspects of operations, all prior claims, all vehicles and all drivers at the time of application. Holding back any information regarding automobile insurance can result in reduced coverage, cancelled policies and inability to acquire affordable coverage in the future. Worst of all, it could void any claims.

Note that the term "no-fault" applies as an opposite term to the tort system, preventing recovery from responsible third parties. Insureds are still assessed fault in each accident, pay a deductible in proportion to their degree of fault and will have their insurance record adversely affected in proportion to their degree and frequency of fault.

Variability Checklist

Automobile policies are provincially regulated therefore all insurers in a given Province offer the identical coverage form. There are some issues to look for nonetheless, such as:

- Endorsements that may restrict coverage
- Limits offered for endorsements vary from insurer to insurer
- Forms for different Provinces will vary greatly, depending upon system of insurance particular to that Province
- Minimum deductibles
- Underwriting requirements

Availability in 2004

Total Insurers:	63 Private Sector; 4 Public Sector
Insurers Accepting Builders:	18

Note

The problem affecting availability is the refusal of insurers to offer automobile insurance on a "mono-line" basis, choosing to provide the coverage only if another line of coverage, such as GL, is purchased. This reduces the availability for builders considerably because the risk appetites of insurers differ between the CGL and Automobile classes.

Surety Bonds

*Bonds are **NOT** Insurance Coverage*

Purpose/ Overview

The purpose of a bond is to guarantee to the owner of a project that the contractor performing the work is capable of completing the work as promised in its bid. Bonds are not insurance, but they are provided by insurance companies because insurers have the necessary financial resources and understanding of risk.

Description

A bond is a three-party contract where the Surety (the insurance company providing the guarantee) guarantees to the Principal (the project owner) that the Obligee (the contractor) is capable of completing the work. If at some point during construction the contractor is unable to complete the work or remain in compliance with the contract terms, the Principal can call upon the Surety to arrange for completion of the job. This particular scenario requires a Performance Bond. Without this bonding facility, it would be almost impossible to carry out a construction project as the risk of loss to the owner would be too great.

Surety Bonds

*Bonds are **NOT** Insurance Coverage*

Conditions/ Comments	The key condition for a contractor to qualify for bonding is its financial condition. Only well-capitalized, profitable contractors working within their financial resources will qualify for a bond. Since bonds are not insurance, if the Surety has to take over completion of a project, it will expect reimbursement for its costs from the contractor and has a legal right of recourse. Often however the contractor has only debt and the surety will take a loss. For this reason, Sureties will also require Personal Indemnities from the principals of the bonded contractor. This is an agreement whereby the principals pledge their own personal assets in the event the Surety must complete a project. Although the value of that pledge may pale in comparison to the size of the loss, the intent is to ensure the principals have a vested interest in operating the company in a financially sound manner and do not overextend themselves to work beyond their capacity to complete. Sureties will absolutely recover against Personal Indemnities, so this is a very serious condition that the principals must carefully consider. For a builder, performance bonds are not usually necessary as the builder is the owner. However, governments and government corporations are increasingly requiring builders to provide bonds with the people of the province as Principal in order to guarantee adequate financial resources to conform with the provinces respective new home warranty programs.
Variability Checklist	Bonds are generally similar from Surety to Surety as most use standardized documents. There may be variability when the form is dictated by the Obligee (owner) of a site. In addition, financial requirements and conditions vary from Surety to Surety with respect to the requirement of personal indemnities and the amount of those indemnities, plus the requirement of a spousal indemnity.
Availability in 2004	Total Insurers: 43 Insurers Accepting Builders: 17
Availability	There are about 20 highly active surety providers in Canada and another 23 that operate on a limited basis. Each has its own requirements and risk appetite. In general, if a company has sound financials, equity, capital, profit and a good business plan, it will find bonding readily accessible.

Directors and Officers Liability

Purpose/ Overview	Provides legal liability coverage for individual directors and officers of a corporation. The policy will also cover the liability of the corporation for indemnifying the directors and officers.
Description	The policy covers against "Wrongful Acts". This is generally any type of act by a director or officer, in the regular course of their duty as director or officer that causes financial harm to parties with an interest in the corporation including shareholders, employees, suppliers, investors and the general public.
Conditions/ Comments	Legislation in all Canadian provinces imposes individual liability upon directors and officers for a variety of different reasons including employment practices and fiduciary responsibility for pension plans. Any person serving as a director or officer of a corporation should carry this coverage.

Directors and Officers Liability		
Variability Checklist	An expert broker is needed to properly address a given builders specific needs with respect to Directors and Officers Liability Insurance Coverage.	
Availability in 2004	Total Insurers:	17
	Insurers Accepting Builders:	10

Figure 5.2.1: Getting Started

- **Who do I call to arrange insurance for a homebuilding project?**

The only way to properly arrange coverage for your project and ensure you get the best advice, value and protection is to contact an independent insurance broker that specializes in the Residential Construction Industry. Consult the directories of members and suppliers published by the CCA or other local Residential Construction Industry associations.

- **I'm sure insurance will be very expensive.**

Unfortunately, the years 2001 through 2003 saw drastic increases in the cost of insurance, not to mention the availability and variability of policies. The term "expensive" is relative to each individual business. There is definitely a cost associated with purchasing insurance and that cost will fluctuate over time, sometimes drastically. However, depending upon project specifications, limits and type of coverage, general insurance will cost about 1% to 2% of the total cost of the homebuilding project.

- **How many insurance companies provide coverage for builders?**

In 2004, there are about 38 different insurance organizations providing various types of insurance coverage to builders.

Figure 5.3: Subcontractors and Trades

€ My Insurance Company always asks if my subcontractors carry insurance. Is this necessary? Should I require subcontractors to have insurance?

Insurers ask about subcontractor coverage as a means of knowing that if the insurer pays claims for which the subcontractor was responsible, the insurer will be able to recover its loss from the subcontractor's insurer.

It is not absolutely necessary for insurers to do this, but most insurers do because it is an important element to the profitability of the organization, so it can rarely be avoided.

You should indeed require your subcontractors to carry insurance. In the event that a subcontractor causes a loss, you need the security of knowing there are resources to pay for the loss and keep the project on schedule. If your subcontractors have no insurance, either your organization or your insurance program will have to absorb losses caused by the subcontractors. Even if those losses are insured, you would be incurring any resulting reduction in availability of coverage or increase in premium. In order to protect your business from unnecessary expenses, demanding insurance from subcontractors is a must.

€ What type of insurance and what limits should I ask of subcontractors?

It is recommended that you require at least $2,000,000 of commercial general liability insurance from subcontractors. Subcontractors should also show evidence of sufficient property insurance to cover their own tools, equipment and products used at the site. Automobile insurance should be carried and evidenced at $2,000,000.

In addition, you should require that your subcontractors add your firm as an "additional insured" to their policies with respect to any work done by the subcontractor on your projects. The benefit of this action is that if the subcontractor causes a loss and you are named as a defendant in the suit, the subcontractor's policy will provide your defence and you avoid making a claim from your own insurer for an incident that was not your fault.

Finally, the subcontractor should show that every effort will be made by its insurance company to advise you of any changes in the subcontractor's coverage or the cancellation of such coverage. It would not be reasonable to ask for guaranteed notice because the subcontractor's insurer will most likely refuse to provide it. See Figure 5.7 for Insurance Contract Requirements.

€ How do I get proof that my subcontractors are carrying insurance and keeping that insurance in place?

The best proof is to request a certificate of insurance that evidences all of the coverages and specifications noted in the question above.

For extra security, ask that the certificate be signed by the insurance company, not the subcontractor's at your projects. The benefit of this action is that if the subcontractor causes a loss and you are named as a defendant in the suit, the subcontractor's policy will provide your defence and you avoid making a claim from your own insurer for an incident that was not your fault.

Finally, the subcontractor should show that every effort will be made by its insurance company to advise you of any changes in the subcontractor's coverage or the cancellation of such coverage. It would not be reasonable to ask for guaranteed notice because the subcontractor's insurer will most likely refuse to provide it. See Figure 5.8 for a Sample Certificate of Insurance Checklist.

€ **What is not covered by the insurance provided by my subcontractors and architects?**

Generally speaking, your subcontractors will be able to cover all of the same incidents that are not covered by your own insurance program. The key risk with subcontractors is the warranty period. Since the subcontractor will not be covered for the warranty by its insurer, it is important to ensure it has the resources to meet its warranty requirements under the contract.

Your architect's insurance policy may not cover it for design errors that have not yet caused any physical damage to the project. It is important to check this out before beginning design work.

€ **What if my subcontractor refuses to provide the amount of insurance that I require?**

If the subcontractor refuses, you have the option of refusing to contract with the subcontractor. However, this may not be desirable depending upon your relationship with the subcontractor, the cost of work and the quality provided by the subcontractor. This is an individual choice that you must consider for your given circumstance. Insurance professionals recommend that certificates are absolutely mandatory.

Figure 5.4: Property Insurance

€ **I hear insurance companies won't cover the full value of my project. Is this true?**

Each insurance company has its own maximum capacity when it comes to property insurance. Capacity simply means the maximum limit of insurance the company can offer on a specific property or project. If the value of your project exceeds your insurer's capacity, it will indeed not be able to offer coverage on the full value of the project.

In such circumstances, you have a few options. First, you can investigate alternate insurance companies. If capacity is still not sufficient, your broker can arrange primary/ excess insurance or pro-rata insurance among two or more insurance companies.

However, even using excess or shared programs, you may still have a project where the value exceeds the capacity of available insurance companies. In such cases, you are left with little choice but to organize the construction schedule in such a way that your exposed values never exceed your maximum limit of insurance.

There are various ways you can help increase your insurer's capacity. Providing excellent site security, most notably fire prevention, is the best way. In addition, if you create gaps in your construction plan, such as never building more than six houses before leaving a two house gap in all directions, your insurer will be able to add more capacity, plus you will be reducing your exposed values and keeping within any capacity restrictions that do occur.

€ **Does Builders Risk coverage also cover Business Interruption like my regular property insurance?**

Yes, Builders Risk policies provide a form of Business Interruption coverage known as "Soft Costs" and/ or "Delayed Start-up Coverage". Essentially, these coverages will compensate you for the additional expenses created due to the delayed completion of the project resulting from a loss that is covered by the Builders Risk policy. Soft Costs will cover you for all expenses not directly related to the "brick and mortar" of the job, such as financing expenses, legal fees and design costs. For further details see Figure 5.2.4 for further details on Builders Risk coverage.

€ **What if I incur additional expenses because the project is completed late?**

If the project is completed late simply because you failed to meet your schedule, there is no form of coverage available. There are special forms of coverage known as "Delayed Start-up" for Owners and "Liquidated Damages" for Contractors, along with Force Majeure insurance and combined polices. These policies will provide coverage for delays that are not the result of physical damage covered by a Builders Risk policy, but only for certain specified perils. Such policies are difficult to procure and come at an expense, with very detailed underwriting requirements such as legal and financial review in advance of the start of the project.

€ **Can I get insurance to cover the contract warranties?**

This question can be misleading as it can be interpreted in two ways. Warranties and guarantees provided by the builder, such as the builder warrants the home will be free of defects for a period of one year, are not covered by general insurance policies.

When the builder is required to do work to a completed house under the warranty provisions, if that work causes a loss, such as an electrician starting a fire, the loss is covered by the builder's insurance program subject to all the usual terms and conditions of the policy.

€ **My insurance company makes me sign a lot of "Warranties". Some of the requirements are very difficult to meet. Is this truly necessary?**

The warranties referred to here are promises you make to the insurance company to conduct your work in a certain way, on the knowledge that if you break that promise you will not be covered for the loss. These warranties are therefore very serious and must be adhered to with diligence.

It is true that some warranties are very onerous. Insurers feel the warranties are necessary as a means of ensuring that builders will take certain precautions to avoid preventable losses. The onerous nature of the warranties puts the builder in a position where its greatest interest lies in protecting the project.

Warranties provide absolutely no benefit to the builder. Therefore, you should avoid warranties as much as possible. If your insurer is requiring too many warranties with conditions that are unsatisfactory to you, then it is advisable to obtain quotes from other insurers. In some cases, if you can trade a little more premium for fewer warranties, it is beneficial.

Ultimately, there are a certain number of warranties you will have to accept in order to arrange for your insurance coverage. Please be sure you read, understand and conform to these warranties for the entire duration of your project.

Figure 5.5: Liability Insurance

€ **How much liability coverage should I buy for my business?**

It is difficult to prescribe a specific amount of liability because it is impossible to know how catastrophic a loss may become. The general rule of thumb is to buy as much coverage as is readily available and affordable. Your broker can help you make that choice.

It is also advisable to obtain "benchmark" information and find out what maximum and average limits of liability are purchased by other companies of your size and operation. Your broker has this kind of detail.

€ **Will purchasing liability insurance cover my subcontractors and tradespeople?**

Your liability insurance will cover your vicarious liability arising from the work or operations of your subcontractors. In other words, your policy will protect you from work done by your subcontractors, but it will not protect your subcontractors, they must buy their own policy.

€ **What is "Contractual Liability"? Does that mean I am covered for all the liability assumed under a contract?**

Contractual Liability coverage will provide coverage for property damage or bodily injury for which you are liable by virtue of liability you assumed under a contract, rather than liability that attaches due to your negligence. The key is that there must be bodily injury or property damage. Pure financial loss or other contractual disputes are not covered.

You may not be covered for all contracts. It is important to check your policy and determine if contractual liability applies only for "insured contracts", "scheduled contracts" or "blanket contractual".

€ **What is "Wrap-up" coverage? Do I need to buy it?**

Wrap-up coverage is single-project liability insurance that provides limits of liability to the specific project on a primary basis covering all participants in the project, including owners, contractors, subcontractors and consultants, for general liability exposures. The key advantage is that the limits of liability are dedicated specifically to the contract and therefore aggregate limits are not eroded by losses occurring at other projects for which the participants may be liable.

The need for wrap-up varies with each different situation. Consult with your broker to determine your specific needs.

The benefits are knowing that all participants are covered, limits are dedicated only to your project and you avoid the administrative burden of obtaining and verifying certificates from all of your subcontractors. See figure 5.2.4 for further details on Wrap-up coverage.

€ **What is "Completed Operations"?**

Completed Operations refers to the risk of loss arising from the work you perform following the completion of that work, provided the work is done away from your premises.

Figure 5.6: Making a Claim

€ **If I make a claim, will I still be able to buy insurance next renewal?**

Unfortunately, there is no definitive answer to this question. If you were to make one claim, there is no reason why your insurance program should not be renewed the following year. Insurers understand that claims will occur and that the purpose of insurance is to use the premiums of the many to cover the losses of the few.

€ How will my premium be affected by a claim?

Your premium should not be adversely affected by one a claim in a given period of three years or more. You may incur one claim and find your premium increases at renewal, but that may be an increase reflecting underwriting and claims trends across the entire industry, not your specific loss.

However, if you have several losses, insurers may determine that your business does not exercise sufficient loss prevention measures. Under these circumstances, insurers are more likely to cancel your program at renewal because without proper loss control, claims will continue to occur. Frequent claims distort the ability to use premiums of the many to pay for the losses of the few.

By accepting reasonable deductibles and exercising loss prevention, you can reduce your likelihood of incurring a claim, helping to ensure you can benefit from the best rates available.

€ Should I pay my own claims if they are not too much more than the amount of my deductible?

In theory, if you purchased an insurance policy and you incur a claim that is covered by that policy, you should not pay for it otherwise you are defeating the purpose of buying that very policy.

However, as noted in the previous question, claims frequency can negatively affect your ability to obtain insurance at an affordable rate. Therefore, if your loss is only slightly higher than your deductible, and you can absorb that loss without great financial stress then you should indeed pay that loss as it will bring you more benefit in the long run.

Under such circumstances, you should consider increasing your deductible and gaining even more benefit by the reduction in premium associated with the deductible increase. If you are going to absorb losses to a certain level anyway, it is best to set your deductible at that level. Once you have done that, then it is best to submit every loss to your insurer. Far fewer losses will qualify which means your insurance record will be protected.

€ Why should my insurance program be affected if my subcontractor caused the claim to occur?

If your program responds for your benefit on a loss caused by your subcontractor, your program has to be affected because you are relying upon it to protect your vicarious liability.

You can avoid this by ensuring that your subcontractors carry insurance and that you are added to that insurance as an additional insured. This way, your subcontractor's insurer will protect your vicarious liability and you do not have to put your insurance record in jeopardy.

€ What if my subcontractor has a claim, but does not have any insurance? How do I protect myself?

Your liability policy will protect you for the vicarious liability arising out of the negligence of your subcontractors. You will be protected, but your subcontractor will not.

Insurance requirements cannot be too stringent. Insurer objections, unnecessary additional premiums and associated contract costs could result. Onerous requirements may deter contracting parties from agreement. Alternatively, if insurance requirements are too lenient, exposures may not be covered adequately. The following table lists some owner options for insurance requirements:

Figure 5.7: Insurance Requirements

Options for Strengthening Insurance Contract Requirements					
Issue	Implication	Third Party	Standard Requirements	Stringent Requirements	Rigorous Requirements
Disclosure of deductibles	Ensures deductibles are affordable for all participants	All participants	Set a maximum deductible such as 1 per cent of contract price	Set an acceptable deductible range	Set a very low maximum deductible
Waiver of Subrogation	Contracting parties agree not to subrogate for losses caused by either at the site	Insurer	Liability is several, with one-way subrogation	Liability is several, with bi-lateral waiver of subrogation	Liability is joint and therefore no waiver is necessary
Notice of cancellation	Ensure certificate holder will receive notice of cancellation	Insurer	Best effort to provide notice	Best effort to provide 30 days notice	Guarantee to provide 30 day notice
Evidence of Insurance	Ensures all participants carry insurance	None	Certificate provided	Certificate provided before access to site is granted	Certificate provided as a condition of releasing maintenance holdback
Acceptability of Insurers	Ensures an insurer meets standards of financial security	Insurer	A. M. Best Rated A- or better	A. M. Best Rated A or better	A. M. Best Rated A+ or better
Additional Insured	Provides defence of vicarious liability to the contracting party	Insurer	Additional Insured with respect to operations or work arising from the Named Insured	Additional Insured	Additional "Named" Insured
Contractual liability	Ensures contracting party has coverage for assumed liability	Insurer	Contractual Liability	Blanket Contractual	N/ A
Professional liability	Ensures contracting party has coverage for design errors	None	Evidence of coverage via certificate	Evidence of coverage including cost to repair errors where no physical damage exists	Evidence of coverage from a party that has not engaged in design work for the project
Limits	Ensures sufficient coverage to meet exposure needs	None	$2,000,000	$5,000,000	$10,000,000 or more

It is important to secure evidence of insurance from all contracted parties. This will assure that liabilities assumed by the architect/ engineer or contractor under hold harmless agreements can be financially guaranteed. While the requirements may vary from project to project, Figure 5.8 is a checklist for certificates of insurance that may be helpful:

Figure 5.8: Certificate of Insurance Checklist

Certificate of Insurance Checklist		
Yes	No	
		Owner's Form Certificate Used
		Original Signed Copy Received
		Fax copy received (okay to access site if followed up by original in mail)
		Insurer Rated A- or better by A. M. Best
		General Liability is an Occurrence Form
		General Liability limit is $2,000,000 each occurrence
		General Liability included: Employers Liability $2,000,000 Contractual Liability$2,000,000 Personal Injury Liability $2,000,000
		Completed Operations Aggregate $2,000,000
		General Aggregate $5,000,000
		Owned and Non-Owned Automobile Liability $2,000,000
		Owned and Non-Owned Aircraft/ Watercraft Liability $2,000,000 (If Applicable)
		All risk contractor's equipment insurance covering owned, used, and leased equipment required to perform the services called for in the contract documents
		Description of operations must show the project code and project name; owner named as additional insured on CGL and auto policies
		Certificate Holder is added as Additional Insured with respect to liability arising from the work of the Certificate Provider
		Provides Certificate Holder with 30 days notice of cancellation or material change of the risk

Appendix A

Marsh Risk Inventory

EXTERNAL RISKS

- Capital Availability
- Competitor
- Customer Needs
- Disease
- Economy
- Financial Markets
- Industry
- Legal
- Natural Hazard/Catastrophe
- Regulatory
- Shareholder Relations
- Sovereign/Political
- Technological Innovation
- Terrorism

INTERNAL RISKS

Strategic

- Brand/Image
- Business Model
- Business Portfolio
- Intellectual Property
- Marketplace
- Organization Structure
- Planning
- Product Life Cycle
- Resource Allocation

Operational

Process

- Alignment
- Business Interruption
- Capacity
- Change Response
- Compliance
- Contract Commitment
- Customer Satisfaction
- Cycle Time
- Delivery Channels
- Efficiency
- Environmental
- Health & Safety
- Knowledge Management
- Measurement
- Partnering
- Performance Gap
- Physical Security
- Product Development
- Product Liability
- Product/Service Failure
- Product/Service Pricing
- Relationship Management
- Strategy Implementation
- Sourcing
- Supply Chain
- Transaction Processing

Management Information

- Accounting Information
- Budgeting & Forecasting
- Completeness/Accuracy
- Financial Reporting
- Investment Evaluation
- Pension Fund
- Regulatory Reporting
- Taxation

Human Capital

- Accountability
- Change Readiness
- Communications
- Competencies/Skills
- Empowerment
- Hiring/Retention
- Leadership
- Outsourcing
- Performance Incentives
- Succession Planning
- Training/Development

Integrity

- Conflict of Interest
- Employee Fraud
- Ethical Decision Making
- Illegal Acts
- Management Fraud
- Reputation
- Third-Party Fraud
- Unauthorized Acts

Technology

- Access
- Availability
- Capacity
- Data Integrity
- e-Commerce
- Infrastructure
- Relevance
- Reliability

Financial

- Cash Flow
- Collateral
- Commodities
- Concentration
- Counterparty
- Credit
- Default
- Equity
- Financial Instruments
- Foreign Exchange
- Interest Rate
- Liquidity
- Modeling
- Opportunity Cost

Residential Construction Industry - SPECIFIC RISKS

Developed in conjunction with MMC risk specialists.

Appendix B

Residential Construction Industry Risk Inventory

Asset Management Risks: Loss, Damage or Destruction of Physical Property

Impact 3

Catastrophic Loss Risk	Any event, not caused by nature that may significantly impact the successful completion of a project.
Construction Accidents Risk	Unintentional damage on or to the construction site and/ or key equipment resulting in delays, or preventing the completion of a project.
Employee/ Third Party Fraud Risk	Fraudulent activities perpetrated by employees, customers, suppliers, agents, brokers or third-parties against the builder for personal gain (e.g. theft of physical, financial or information assets) expose the builder to financial loss.
Force Majeure Contingency Risk	Failure to adequately plan and prepare for Force Majeure situations may adversely impact the successful and timely completion of the project.
Intellectual Property Risk	Inadequate storage and protection of records (e.g. management plan, certificates, surveys, seismic data, electronic data).
Natural Hazard Risk	Any act of nature (fire, water, wind, earthquake, temperature etc.) that may significantly impact the successful completion of the project.
Supply Chain Risk	Inability or failure to acquire, transport or deploy required materials and equipment at the right time, location and cost (including property damage to suppliers delaying or preventing delivery) may result in delays and/ or additional costs.
Third Party Property Damage Risk	Damage to third party property at or on the construction site (contractor's plant and equipment) may result in financial damages and/ or construction delays.
Vandalism/ Terrorism Risk	Vandalism, terrorist acts, sabotage, demonstrations, or theft may result in unacceptable downtime or obligations.

Financial Risks: Financial Impact on Organization	Impact 3
Acquired Asset Integration Risk	Inability to integrate acquisition into the builder's processes, systems and culture may result in inefficiencies or actions counterproductive to achieving strategies
Budgeting Risk	Ineffective planning, budgeting and forecasting caused by flawed input or processes (e.g., forward price curves) may impair management's ability to communicate financial business objectives and evaluate actual business performance.
Capital Availability Risk	Inability to raise sufficient capital may inhibit the builder's ability to achieve its development, acquisition and construction objectives.
Cash Flow/ Liquidity Risk	Insufficient liquidity may result in inability to meet debt and other operational obligations.
Credit (Default) Risk	Inability to adequately assess the creditworthiness of counterparties, suppliers or other key parties may result in default exposure or lack of performance.
Credit and Collateral Risk	Inadequate creditworthiness of lenders, contractors, suppliers, etc. may result in exposure to unanticipated obligations.
Debt Compliance Risk	Failure to comply with debt covenants may result in unfavourable consequences. (e.g., calling of loan, inability to obtain new financing, and higher interest rate.)
Due Diligence Risk	Inadequate due diligence during asset acquisition may result in poor investment decisions and/ or inadequate returns on investment.
Interest Rate Risk	Inability to effectively manage the cost of capital may impair the financial viability of the projects or the builder.
Partner Risk	Failure to adequately identify capable partners with a shared vision, structure effective partnering relationships, and define and monitor partner expectations and performance, may limit the ability of these ventures to enable the builder's strategic objectives.
Utility Prices Risk	Fluctuations in prices may result in unacceptably high generation costs.

General Management Risks	Impact 3
Brand Risk	Erosion/ loss of the inherent value of the organization impacting the image of the organization and demand for its products and services.
Business Interruption Risk	Failure to effectively plan for and recover from interruptions of operations may impair the builder's ability to meet deadlines and complete a project.
Change Order Risk	Failure to adequately assign responsibility for change orders and to monitor change orders may result in unauthorized and/ or costly changes.

General Management Risks

Impact 3

Communications Risk	Inability to communicate/ control construction projects at remote locations or multiple sites.
Construction Engineering/ Design Risk	Poor engineering or design capabilities may significantly impact the project timing and optimal operational capability.
Contracting Risk	Failure to effectively execute and manage contracts and similar agreements that appropriately protect may result in unexpected and unacceptable obligations or lack of performance by other parties.
Contractor Performance Risk	Inadequate contractor availability or performance, and/ or shortage of craft labour, may result in completion delays, sub-standard materials, unacceptable variations from plans and specs as well as cost overruns.
Cost Overrun Risk	Costs incurred outside of an acceptable range for a project (outside of contingency) may adversely affect return on investment or project completion.
Economic Risk	Risk of fluctuations due to changes in general economic conditions and changes in local market conditions (e.g. commodity prices, building permit activity, interest rates, housing starts, employment levels, availability and cost of labour, and consumer confidence).
Estimation Risk	Inaccurate estimates with respect to project finance, timeliness, government legislation and surveying resulting in insufficient capital or project delays.
Human Resources Risk	Inability to attract, develop and retain competent people may inhibit the builder's ability to execute, manage and monitor key business activities.
Industry Risk	Inability to recognize and react to actions, products or services of competitors that threaten the organization's competitive advantage in the marketplace.
Labour/ Union Relations Risk	Strikes and/ or other collective actions may disrupt operations and achievement of objectives. Limitations in the collective agreements may limit employer operational and human resource flexibility.
Performance/ Completion Risk	Insufficient funds for the timely completion of the project in part or in its entirety.
Performance Measurement Risk	Lack of defined performance metrics, and inability to gather relevant information for measurement purposes, may impair management's ability to monitor individual and overall business performance.
Project Allocation Risk	Inability or accidental omission to transfer risk to a viable third party may result in unfavourable exposure to the builder.
Project Delay Risk	Failure to bring the project on line within a desired time frame or pre-determined date(s) may result in unfavourable return on investment.
Site Selection Risk	Inability to identify and obtain qualified site locations may impact the builder's ability to achieve its development objectives.
Utility Supply Risk	Inability to accurately forecast and procure necessary utility supplies may result in inadequate fuel to cost-effectively generate power.

Personnel Risks: Injury to Staff or Third Parties	**Impact** 3
Health and Safety Risk	Failure to adequately promote and protect employees' and contractors' health and safety may result in injury or death and/ or future injury or death to personnel.
Site Security and Safety Risk	Lack of site security and safety procedures at the construction site (toxic material handling, site visits, and uncontrolled work environments in remote locations) can cause unexpected injuries to employees, contractors and third parties.
Third Party Bodily Injury Risk	Inability to adequately anticipate, prevent, and mitigate against third party injury (other than contractors) may result in unacceptable obligations (trespassers, neighbours, etc).

Products/ Services Risks: Property Damage of Financial Loss Arising From Products or Services	**Impact** 3
Customer Satisfaction Risk	Inability to understand and meet customer needs may result in substandard service and lost or disgruntled customers.
Products/ Service Failure Risk	Faulty or non-performing products, materials or services expose the builder to customer complaints, warranty claims, field repairs, returns, product liability claims, litigation and loss of revenues, market share and reputation.

Compliance Risks: Failure to Comply – Legislation, Systems, Protocols	**Impact** 2
Illegal Acts Risk	Illegal acts committed by managers or employees expose the builder to fines, sanctions and loss of customers, profits and reputation, etc.
Legal and Regulatory Changes Risk	Changes in laws and regulations (e.g., environmental laws) may adversely impact the builder's business model.
Legal and Regulatory Risk	Failure to comply with legal, statutory or environmental and health regulations may result in fines and penalties, delays in project, create unsafe project work conditions or negatively impact the builder's reputation.
Permitting Risk	Failure to obtain appropriate permits may result in delays, fines, penalties and/ or sanctions.

Environmental Risks: Damage to the Environment Arising from Activities, Occupation or Developments	**Impact** 2
Change in Ground Conditions Risk	Unforeseen ground conditions may result in estimation risks and/ or delays in the pre/ post construction operations.
Legacy Environmental Risk	Inheritance of poor past practices/ sites (e.g. Waste dumps, problem sites, acquired operations) may impact the builder's ability to achieve its development objectives.

Environmental Risks: Damage to the Environment Arising from Activities, Occupation or Developments

Impact 2

Pollution Risk	Accidental release of dangerous substances and/ or contaminants caused inadvertently in typical activities (e.g. Bulk fuel storage leakage) can cause environmental damage (e.g. Soil dispersion, sediment movement) and may result in significant financial responsibility.

Technology Risks

Impact 2

Information Technology Risk	Outdated or inadequate information systems and infrastructure may impact the builder's ability to accurately process key information needed for business decisions and efficiently run plant operations.
Project Technology Risk	Failure in technology to meet its promised performance may affect the financial viability of the project.
Technological Change Risk	Inability to anticipate and assimilate new technology may adversely impact the viability of the builder's business model.

Appendix C

Glossary of Terms

Take a few moments to familiarize yourself with the meanings of the terms and phrases listed below. This will help you understand the language of the guide.

Accord and Satisfaction

A term of contract law by which one party, having complied with its obligation under a contract, accepts some type of compensation from the other party (usually money and of a lesser value) in lieu of enforcing the contract and holding the other party to their obligation.

All Perils

This is the broadest form of property insurance. This kind of policy will provide coverage for any kind of loss that is not excluded. That is, instead of listing all of the perils covered by the policy, the form only lists the perils that are not covered by the form. The list will be divided into property not covered and perils not covered.

Amount Subject

This term refers to the total value of property insured by one insurer that can be destroyed by a single loss. For example, two buildings of $2,500,000 in value each, located within 10 meters of each other would constitute an Amount Subject of $5,000,000. This is because a fire could potentially spread from one building to another, causing a single loss of $5,000,000.

Annual Aggregate Limit

When a policy states that there is an annual aggregate limit of liability, it means that in addition to a limit of coverage that applies to each individual loss, there is also a limit applying to all losses combined and occurring in a single policy period. For example, if your CGL policy has a limit of $2,000,000 and an aggregate limit of $5,000,000, you are covered up to $2,000,000 for any single claim, but you can only incur a total $5,000,000 of claims in a single policy period.

Claims-Made

A claims-made liability policy states that a loss must occur and be reported to the insurer during a specified period. That specified period will begin on the retroactive date and end typically at 30 days or 60 days after the expiration of the policy. In some cases, it may be possible to arrange a longer reporting period. It is possible that the retroactive date and the effective are the same date, or the retroactive date may be some other date, usually the date which the insured first bought its claims-made policy.

Completed Operations

Bodily injury or property damage caused by actual or alleged defects from faulty work, where the injury or damage occurs away from the premises owned or controlled by the insured, is called "Completed Operations" hazard. This liability is covered by a General Liability policy.

Consequential Damage

Damage that occurs as a result or as a consequence of direct physical damage is known as consequential damage. For instance, you own a small commercial building that is destroyed by fire, damage to the building by the fire is direct physical damage. Your loss of rental income resulting from the loss of the building is consequential damage. You would require business interruption insurance to protect you from the consequential loss.

Deductible

The amount of a claim you will be responsible for paying. A deductible of $2,500 means you will have to pay for the first $2,500 of any valid claim under the policy. The insurance company will pay any claims in excess of the deductible and within the policy limit.

Delayed Completion

When a construction project is not completed by its contracted completion date, the situation is referred to as a delayed completion. It means the project will be completed later than its intended date.

Direct Damage

This phrase refers to property damage resulting directly from a peril. If a strong windstorm knocked over a row of recently framed houses, the damage to the houses would be a direct result of the windstorm. Loss of revenue resulting from the delay caused to re-frame the project would be indirect damage, because it occurred as a consequence of the damage caused by the windstorm.

Drop Down

In excess liability coverage, the term drop down refers to the excess or umbrella policy dropping down to provide coverage lower than the required underlying limit or coverage that is not provided by the underlying policies.

Endorsement

An additional agreement or clause added to an insurance policy. Endorsements can add coverage, increase existing coverage, remove coverage, decrease existing coverage, clarify or define certain elements of the policy. An endorsement will usually have some premium transaction attached to it and is a legally binding addendum to the policy. When an endorsement reduces coverage, eliminates coverage or narrows coverage, you will usually be asked to sign and copy and return it to the insurer. This is evidence that you understand the restrictions created by the endorsement.

Exclusion

Exclusion is a particular peril or event that is not covered by an insurance policy. Damage caused by the gradual wear and tear of a piece of machinery is not covered by a property insurance policy. Therefore, "Wear and Tear" is an exclusion under the policy.

Excusable Delay

This refers to a delay in the construction schedule resulting from an event that excuses the contractor from liability. An example of an excusable delay is a Force Majeure loss such as and earthquake, strike or civil disturbance.

Fire and Extended Coverage

This is the most basic form of property insurance. It provides protection only against the perils of fire, lightning and certain explosions. In addition, it provides a few additional perils such as leakage from fire protective equipment and impact by vehicles. It does not include loss by theft and may or may not include vandalism and mischievous acts.

Liquidated Damages

A loss suffered by a contractor as a result of not completing its contract on time is known as Liquidated Damages.

Named Perils

Property insurance that provides coverage only for certain scheduled perils is called Named Perils. It would provide all the coverage within the Fire and Extended Coverage form, plus theft and vandalism.

Occurrence Policy

In General Liability, an occurrence policy means that the policy will cover all losses that occur during the policy period, regardless of when the loss is discovered or reported.

Peril

A peril is an event that causes damage to your property. For example, a fire occurring at a project site is a peril because it causes damage to the property.

Primary Policy

This is the first liability policy that will respond in the event of a claim. If you have a CGL policy for $1,000,000 and an umbrella policy for $4,000,000, the CGL is referred to as the primary policy because it will first respond to your loss. If your loss exceeds $1,000,000 then your umbrella policy will be triggered.

Project Specific

This term refers to an insurance policy that has been arranged for a specific project and project durations, rather than a policy that covers all projects on an annual basis.

Reporting Period

The amount of time you have to report a claim after the expiration date of the policy. The claim must have occurred during the policy period. For example, the reporting period for a Contractors Professional Liability policy is typically 60 days. Therefore, if an event causing loss occurs during the policy period, but you are not made aware of it until after the expiration of the policy, you have 60 days to report the loss to the insurer and it will still be covered.

Retroactive Date

A date prior to or the same as a claims-made policy effective date is known as the retroactive date. Since a claims-made policy only covers losses occurring and reported after the retroactive date and before the end of the policy or reporting period, the retroactive date serves to provide continuous insurance on an historical basis.

Underlying Policy

An underlying policy is liability insurance that must be exhausted to trigger an excess liability policy. For example, if you have an excess liability policy for $8,000,000 and a CGL policy for $2,000,000, the CGL policy is referred to as the underlying policy. If you have a second excess policy for $10,000,000, the first excess policy of $8,000,000 is also referred to as an underlying policy.

Appendix D

Summary of 12 Common Insurance Warranties

We are providing the exact language from twelve of the most common warranties associated with residential building construction. Following the wording, we make some comments and point out some key areas around which to exercise caution and concern.

Watchman Warranty

It is hereby warranted that there shall be a watchman patrol service employed by the Insured and contracted to patrol the perimeter of the construction site on a regular basis outside working hours until the project is completed. For the purpose of this insurance, the definition of Watchman shall not include an employee or representative of the Insured.

This warranty forces the builder to employ a professional watchman during all off hours in order to qualify for coverage.

Open Flame Warranty

It is warranted that during the course of construction of this insured project where a propane gas heater or open flame heating device is used, the device will be positioned on a fire resistive dry wall board, tied off to a wall or floor with not less than 3 feet of clear space surrounding it.

The builder must follow the above specifications perfectly in order to receive the benefit of coverage. The problem with this warranty is that each insurer will require different specifications. If the Insured has more than one insurer, violation of the warranty becomes a very real concern.

Refuse, Waste and Debris Warranty

It is warranted that there shall be no refuse, waste or debris burned at the construction site. Refuse, waste or debris is to be removed from the site every 48 hours. Combustible refuse, waste and debris is to be removed a minimum of 20 feet away from the working area and adjoining area and must be moved outside the building at the end of each working day.

This warranty would seem to fit good common sense regarding site maintenance. The key caution is that some insurers converted the specifications into the Metric system, but incorrectly. One builder told us of a warranty requiring that refuse be moved 20 meters from the building, not 20 feet. This was impossible as 20 meters would have been inside the neighbouring building.

Fence Warranty

It is warranted that the site is to be fenced with a fence that has a minimum height of six feet, with access controlled.

Builders should push back on this warranty when it is simply impossible to achieve. One house under construction in an urban area can and should be fenced. A twenty hectare site in the suburbs cannot possibly be fenced and controlled. Insurers are beginning to understand this.

Site Lighting Warranty

It is warranted that the Insured will maintain adequate artificial lighting of the entire site insured herein during the hours of darkness where feasible. For the purpose of this warranty, the hours of darkness are defined as those hours during the period immediately following the official local lighting up time and until such period is deemed officially ended.

The "official local lighting up time" can be contentious and difficult to ascertain. The term "where feasible" is ambiguous. This warranty can therefore create problems because who is responsible for determining the feasibility – the builder or the insurer? The warranty does not answer this question. Builders should work with their brokers to finalize clear language before signing any warranties.

Hot Works Operations Warranty

It is warranted that a "hot work" permit system is implemented for all contractors or Insured's employees engaged in "hot work operations" of any kind such as but not limited to:

(a) Combustible Material: All portable combustible material must be removed a minimum of 20 feet away from the working area and adjoining areas.

(b) Flammable Liquids or Vapours: Drums, tanks or other containers or explosive liquids or vapours must be cleaned and cleared of flammable or explosive liquids or vapours before work is done on them.

(c) Pre-Operation Precautions: When feasible, work area should be wetted down.

(d) Spark Control: Sheet metal guards, asbestos blankets or similar protection must be provided to prevent hot metal and sparks from falling on combustible material, which cannot be moved.

(e) Fire Protection: If the areas in which hot work operations are being performed are presently under operative sprinkler protection, the sprinklers in that area must be operative during welding or cutting operations. Suitable fire extinguishers or hand hose must be maintained near the operations. An extra person must be provided in the welding or cutting team whose sole responsibility is to watch for sparks and promptly use the extinguishing equipment.

(f) Post-Operation Precautions: After work, a thorough check must be made for smouldering fire in out-of-the-way places, and guard patrol protection must be maintained for a minimum of four hours.

"Hot Work Operations" means:

- *The process whereby one or more of the parts to be joined is heated near or above its melting point, and the heated surfaces are caused to flow together*
- *The process of applying heat to bring to red heat the spot to be severed, gouged or pierced, and the metal is burned in a jet of oxygen*
- *Grinding operations that generate sparks*
- *Torch-on roofing operations*
- *Roof tarring operations*

The most common cause of serious loss at a residential construction site is fire. This warranty is very detailed and explicit because it focuses on operations that are the leading cause of fires at the site. Builders should carefully review the Hot Works Operations Warranty and ensure all site supervisors and personnel are familiar with its conditions.

Fire Extinguisher Warranty

It is warranted that adequate fire fighting equipment and sufficient extinguishing agents are available and operative at all times. The minimum number of fire extinguishers must be sufficient to ensure compliance with applicable Workers Compensation regulations as dictated by the location of the project.

Fire extinguishers are common sense and most builders would carry them regardless of the warranty. The problem with the warranty is that there is no room for error. If the builder forgets extinguishers for even one day on one site and a loss ensues, it will not be covered.

Access Road Warranty

It is warranted that access roads be maintained and cleared to allow fire trucks to enter the site and access all fire hydrants prior to the start of framing activities.

The warranty is not explicit, but it implies that the conditions required before framing will continue until the completion of framing.

Fire Hydrant Warranty

It is warranted that all public fire hydrants to be operational prior to the start of framing activities.

Builders are cautioned to ensure the city can supply the hydrants when required. At sites where hydrants are not yet operational, construction will have to cease until the conditions of the warranty are met.

Material Storage Warranty

It is warranted that there shall be no storage of building materials on the road.

This is a somewhat pointless warranty as no builder will store its materials on the road. However, materials may be left on a roadway for a temporary period while loaded or unloaded onto vehicles that cannot enter the site due to soil conditions and weight restrictions. The warranty does not make allowances for "temporary".

Subcontractor Warranty

It is warranted that the Insured will endeavor, on a best effort basis, to ensure that all contractors and subcontractors have and maintain at least CAD $2,000,000 of Commercial General Liability Insurance through the duration of the project.

It is very sensible to carry out this action, but it also takes a lot of administration. The builder is bound to provide its "best effort" and therefore it will be expected that truly qualified attempts to verify coverage will be carried out. Some form of contractual penalty against the subcontractor, such as no payment without a current and valid certificate of insurance, will be expected.

Firebreak Warranty

It is warranted that if coverage involves the construction of eight or more single detached homes on adjoining lots, grouping of unfinished homes shall be separated by a firebreak. Firebreak shall mean one lot, with a fully finished home on said lot, or two lots (minimum of 70 feet) with no structure on said lot(s).

FAILURE TO COMPLY WITH THIS WARRANTY SHALL RENDER ALL INSURANCE UNDER THIS POLICY NULL AND VOID.

Normally, failure to conform to a warranty will result in no coverage for that part of a loss attributable to the failure. If a loss occurs that is totally unrelated to the terms of the failed warranty, it will still be covered. In the case of the Firebreak Warranty, insurers are stating that failure to comply will result in absolutely no coverage provided by the policy.

This is highly unusual and does contravene existing precedent and practices in the insurance industry. However, despite being unfair and even if the builder could ultimately be found correct in a court of law, the purpose of risk management is to avoid ever going to court as the delays and costs usually outweigh the award of damages. Therefore, builders must pay very close attention to any warranty that threatens the removal of all coverage in the event of failure to comply.

Builders should work with their broker to correct the offending language before signing the warranty.

Conclusion on Warranties

Warranties address several aspects of a construction site where potential exists for a loss to occur, either by fire, trespass or civil liability. In many respects, the warranty language is specific, if not confusing. Despite the best efforts of the insurer, ambiguity still remains in the language of the warranty.

As a result, even when builders follow the warranty to the best of their understanding, a loss may still be denied by the insurer. The first objective is to work with a broker to eliminate as many warranties as possible. Those warranties that cannot be eliminated need to be discussed with insurers in order to clarify the language and intent.

Warranties are very serious conditions of an insurance policy that can only have a detrimental effect on coverage. Warranties provide no benefit to the Insured.

Appendix E

Insurers Providing Various Policy Forms

The insurance policy summary section of Phase 2 of this report notes the number of insurers offering the respective coverage in Canada, and the number of those insurers that will provide coverage specifically to builders.

Following is a list of the names of the insurers that will address builders, as taken from Canadian Underwriter 2004 Statistical Issue, published by Business Information Group, a division of Hollinger Canadian Newspapers L.P.

Certain types of insurance companies have been left off this list as they are not pertinent to the topic of this report. These types of insurers are:

- Reinsurance Companies
- Farm Mutual Insurers
- Specialty Insurers for Hail, Credit, Mortgage, Crop, Livestock and Travel
- Direct Writing Insurers
- Insurers dedicated solely to Personal Lines
- Life Insurers
- Insurers that do not entertain risk for builders

The matrix only notes which insurers offer the coverage. Specific market requirements are not included. For example, an insurer appearing on this list may indeed provide coverage for builders, but only those firms that build in excess of 1,000 homes per year or only for firms that build less than 250 homes per year.

Insurer	Property	Builders Risk	Contractors Equipment	Business Interruption	Soft Costs	Transit	Crime	General Liability	Contractual Liability	Tenants Legal	Non-owned Auto	Employers Liability	OCPL	Excess Liability	Umbrella Liability	Wrap-up GL	Contractors Professional	Contractors Pollution	Special Coverages	Auto	Surety	D&O Liability
ACE INA								X	X	X	X	X	X	X			X	X	X	X	X	X
AIG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Allianz	X			X		X	X	X		X	X	X			X					X		
Aviva	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X					X	
AXA	X			X		X	X	X	X	X	X	X		X	X					X	X	
BI&I	X	X																				
Chubb														X				X			X	X
CNA Canada																	X				X	X
Commonwealth														X	X							
Dominion	X			X		X		X		X	X	X		X	X					X	X	
Ecclesiastical	X			X																		
Economical	X			X		X	X	X		X	X	X		X	X					X		
Elliott Spec. Risk								X	X	X	X					X	X	X				
Encon		X			X			X	X	X	X					X	X	X				
Federated																					X	
GCAN	X		X	X		X	X	X	X	X	X	X		X	X							
Gore Mutual																						
Great American		X			X																	X

Insurer	Property	Builders Risk	Contractors Equipment	Business Interruption	Soft Costs	Transit	Crime	General Liability	Contractual Liability	Tenants Legal	Non-owned Auto	Employers Liability	OCPL	Excess Liability	Umbrella Liability	Wrap-up GL	Contractors Professional	Contractors Pollution	Special Coverages	Auto	Surety	D&O Liability
Guarantee Co.																					X	
ICBC											X			X						X		
ING	X		X	X		X	X	X		X	X	X		X	X					X	X	X
Jevco																				X	X	
Kingsway																		X			X	
Liberty			X			X	X	X	X	X	X	X	X	X	X	X		X	X	X		X
Lloyd's	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Lombard	X	X	X	X	X	X	X	X	X	X	X	X		X	X					X	X	X
MPIC											X			X						X		
Northern Shield	X			X				X		X	X	X										
Optimum																						
Pembridge	X			X																		
Portage																						
Royal	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X	X
SGI Corp.	X					X	X	X		X	X	X			X					X		
Travelers								X	X	X	X	X	X	X	X							
Wawanesa	X			X				X		X	X									X		
Western Surety																					X	
Winterthur	X	X	X	X	X	X	X	X	X	X	X	X		X	X					X		
XL Insurance								X	X	X	X	X	X	X	X	X	X	X				
Zurich	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X
Total	19	10	10	17	9	15	14	22	15	22	24	19	8	20	18	9	8	10	6	18	17	10

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